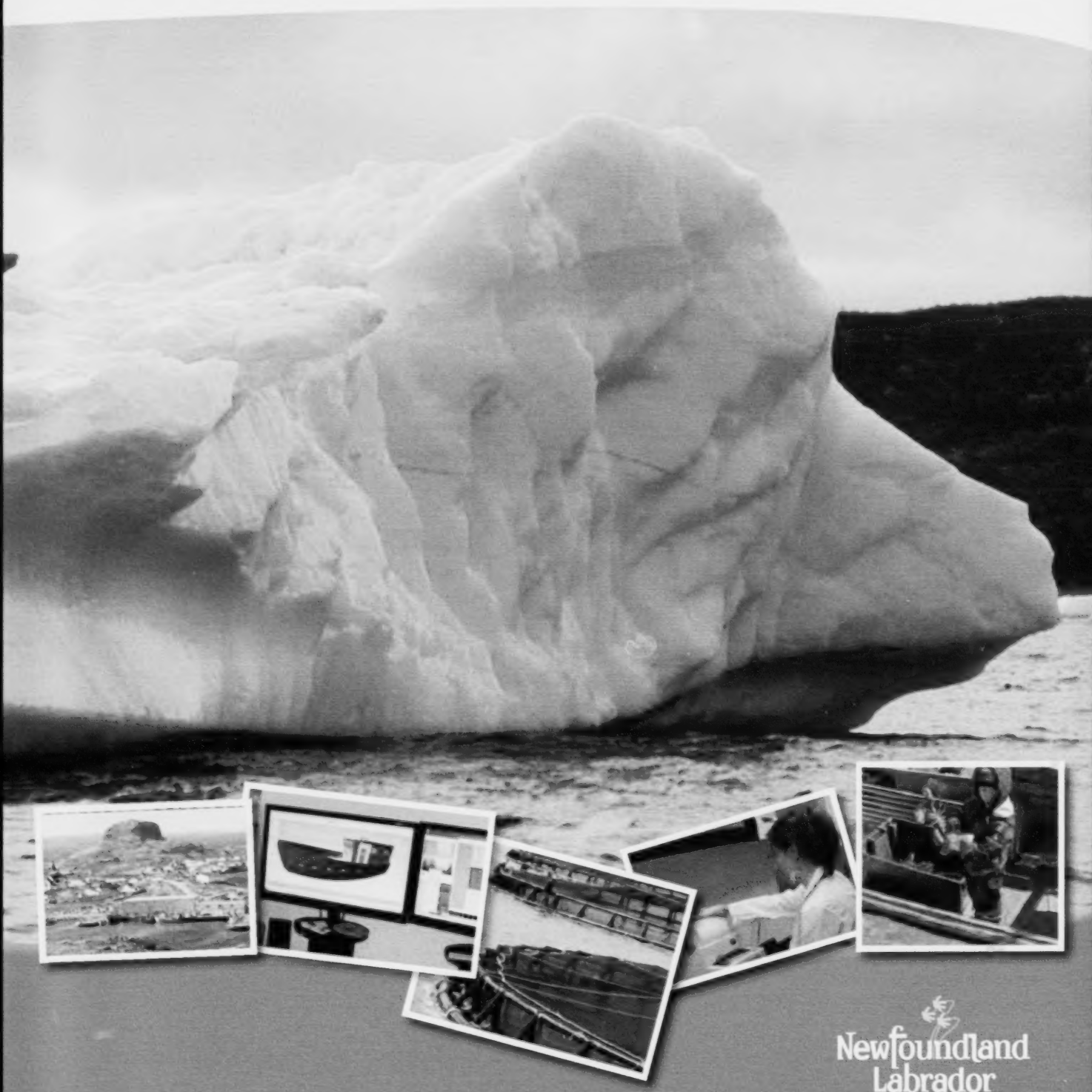
Department of Fisheries and Aquaculture

Annual Report 2011-12



Newfoundland Labrador

Fisheries and Aquaculture

Message from the Minister

As Minister of Fisheries and Aquaculture, I am pleased to present the department's 2011-12 Annual Report. I am accountable for the results contained in this report, which was prepared in accordance with the *Transparency and Accountability Act*. This report details the progress made towards achieving the 2011-12 objectives outlined in our 2011-14 Strategic Plan.

This is the first report on our 2011-14 Strategic Plan. Throughout the 2011-12 fiscal period, the department worked to support the fishing industry in becoming more sustainable and internationally competitive, to facilitate the expansion and sustainability of the aquaculture industry, and to advance a coordinated approach to coastal and ocean management in the province. These strategic issues echo the strategic directions of government as they pertain to fisheries and aquaculture; namely, to enhance the sustainability of the provincial aquaculture industry, to strengthen the role of the fishing industry as a key pillar of sustainable economic growth in the province, and to enhance our position on fisheries and ocean matters falling under federal jurisdiction.

During 2011-12, the Provincial Government made strategic investments in support of the sustainability and competitiveness of our fishing and aquaculture industries, particularly in the areas of science, innovation, and trade and market development. The Fisheries Technology and New Opportunities Program, the construction of an aquatic health facility in St. Alban's, as well as our commitment to new marine infrastructure demonstrate our unwavering commitment to the future of both industries.

As these industries continue to grow and evolve, along with other ocean industries such as oil and gas, the number of stakeholders who rely on healthy and productive coastal and ocean areas and resources also increases and becomes more diverse. To ensure the safe and effective management of our coastal and ocean resources by all user groups into the future, the department released the Coastal and Ocean Management Strategy and Policy Framework for Newfoundland and Labrador on June 16, 2011. Newfoundland and Labrador is the first province in Canada to implement such a strategy, which provides a long-term vision for planning and management, conservation and sustainable use of the province's coastal and ocean areas and resources.

I am pleased with the results achieved by the department throughout 2011-12 and would like to acknowledge all those within government and industry whose collaborative efforts have contributed to these successes. The seafood industry continues to be a key employer in Newfoundland and Labrador, as well as an integral part of our provincial identity, and will continue to be pivotal to our province's economy for years to come.

Darin T. King, PhD
M.H.A., District of Grand Bank
Minister

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Publication Prepared by:

Planning Services Division

Department of Fisheries and Aquaculture

Departmental Overview

Introduction

The Department of Fisheries and Aquaculture (DFA) supports and encourages the development and sustainability of the province's fishing and aquaculture industries. The department is responsible for the licensing and regulation of fish processing for both the fishing and aquaculture sectors.

DFA contributes to the expansion and sustainable management of the province's growing aquaculture industry through extension services, the development of infrastructure, and investment incentives. The department has invested in extensive research and development, seafood marketing, aquaculture infrastructure, and representation to the federal government on behalf of the industry and global markets to support the sustainable development of these key industries of Newfoundland and Labrador. DFA leads the province's Coastal and Ocean Management Strategy and Policy Framework, which demonstrates government's commitment to the planning, management, conservation and sustainability of the coastal and ocean resources of the province.

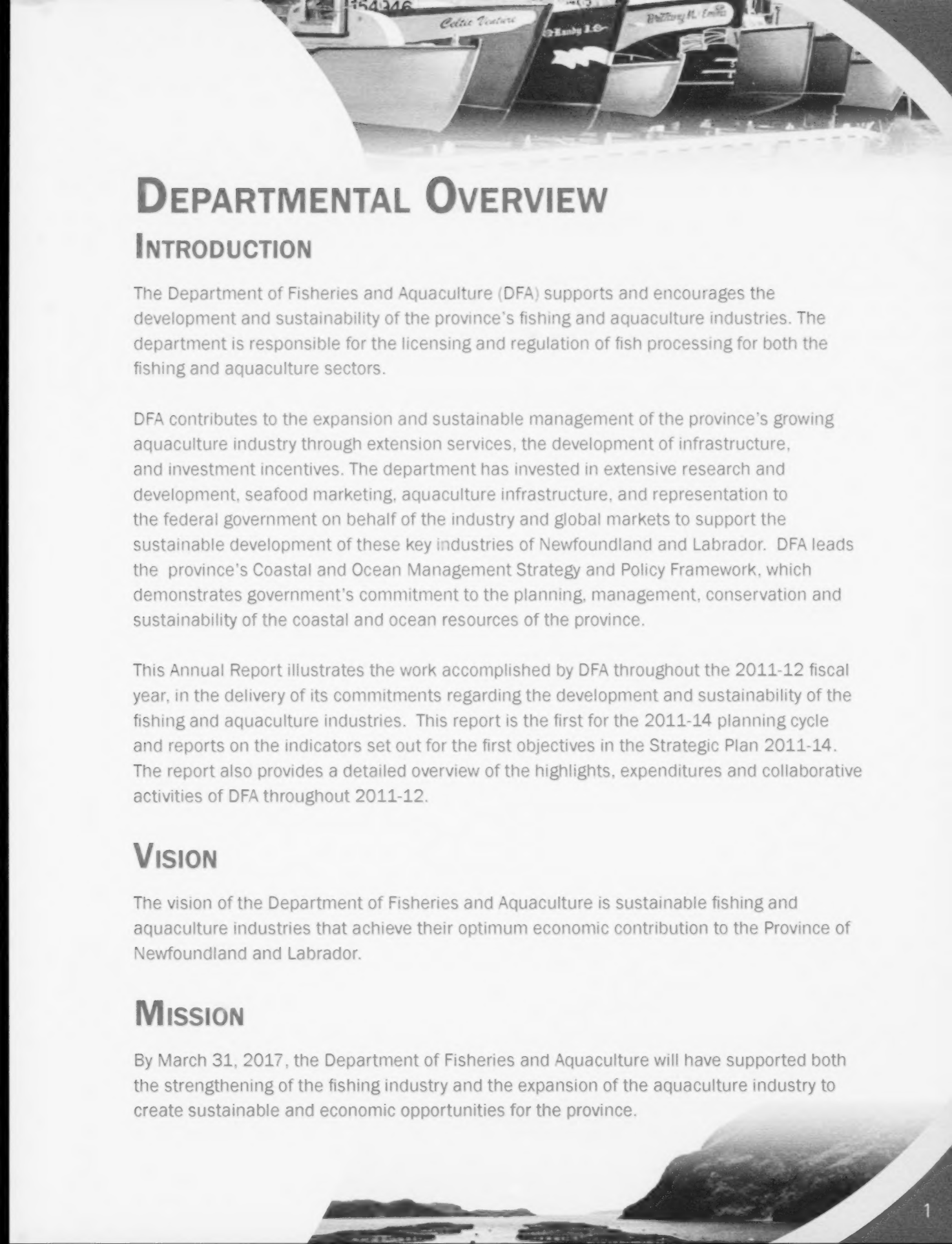
This Annual Report illustrates the work accomplished by DFA throughout the 2011-12 fiscal year, in the delivery of its commitments regarding the development and sustainability of the fishing and aquaculture industries. This report is the first for the 2011-14 planning cycle and reports on the indicators set out for the first objectives in the Strategic Plan 2011-14. The report also provides a detailed overview of the highlights, expenditures and collaborative activities of DFA throughout 2011-12.

Vision

The vision of the Department of Fisheries and Aquaculture is sustainable fishing and aquaculture industries that achieve their optimum economic contribution to the Province of Newfoundland and Labrador.

Mission

By March 31, 2017, the Department of Fisheries and Aquaculture will have supported both the strengthening of the fishing industry and the expansion of the aquaculture industry to create sustainable and economic opportunities for the province.



Lines of Business

Policy and Planning

The department develops, implements, and provides advice on fisheries and aquaculture policies in support of resource and industry management, research, growth, and development. Specific activities include fisheries and aquaculture policy review, analysis and development; review of fisheries management plans and scientific assessments conducted by Fisheries and Oceans Canada (DFO); strategic planning; program development and review; review and analysis of legislation; information management and administration; seafood trade policy research and analysis; collection, compilation and presentation of statistical data; support to fisheries and aquaculture science; and the completion of economic, financial and statistical analysis.

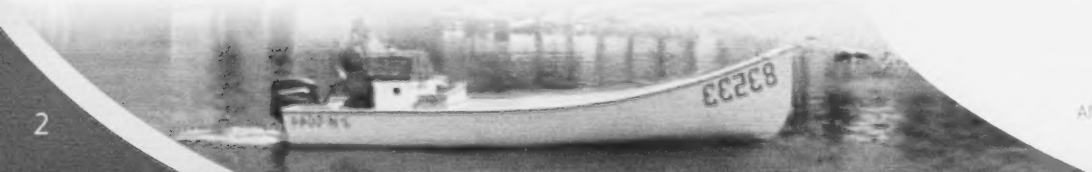
Through this line of business, the department maintains close affiliations with other government departments and agencies whose programs impact on the province's seafood industry. In addition, the department represents the province's interest in national and international venues and provides input into resource assessment and ocean management processes of DFO, and to those international bodies responsible for fisheries assessment and management. Specifically, the department assesses scientific advice for various stocks and species, participates in resource assessment and management advisory committees and assesses the environmental impact of development upon fisheries resources.

Furthermore, the department plays a lead role in fisheries and integrated ocean management within the province, promoting and supporting initiatives which allow for more organized and efficient structures to deal with ocean management issues, particularly those which impact on the province's fishing and aquaculture industries.

Inspection, Compliance and Regulatory Enforcement

DFA provides policy direction and support to its inspection staff in the delivery of compliance and enforcement programs. The department conducts comprehensive inspection, compliance, enforcement and regulatory programs for the fishing and aquaculture industries within its legislative authorities.

Inspectors ensure the seafood industry utilizes proper handling techniques and regulatory requirements, and conduct inspections of fish at fish buying stations, processing plants, aquaculture sites, dockside and on board vessels. In addition, the department is responsible for auditing fish buyers and processors located throughout the province to ensure compliance with regulations, policies and conditions of licenses.



Aquaculture and inspection staff examine aquaculture sites for the presence of disease, compliance with the Code of Containment and proper site boundary markings. Programs related to the maintenance, biosecurity, surveillance and regulation of fish health on aquaculture sites throughout the province are included in this line of business. These activities ensure compliance with the *Fish Inspection Act* and Regulations, the *Aquaculture Act* and Regulations, and Ministerial Directives. The department reviews infractions of the acts and directives and takes appropriate legal action.

Innovation and Development

The department places a strong emphasis on fisheries and aquaculture research, innovation and development. It assists the fishing and aquaculture industries through the provision of technical and financial support in the development of culturing, harvesting, processing and marketing. Innovation within the fisheries sector is fostered through extensive interaction with the private sector, industry-related organizations, other government departments and academia.

The department provides financial assistance for industry-led research and development projects in the fishing industry through the Fisheries Technology and New Opportunities Program (FTNOP). This support includes the following activities:

Harvesting and Resource Development:

Although harvesting is an area of federal jurisdiction, the primary focus of this activity is to oversee the design and implementation of fishery development projects with a focus on the assessment of underdeveloped species, enhancing quality, resource surveys, development of commercial species, and the utilization of appropriate on-board handling technologies aimed at maximizing catch value. The department is also responsible for providing a range of technical services to the fishing industry, including expertise on vessel efficiency, sustainable fishing technology and safety.

Processing Development:

The goal of this activity is to enhance the productivity and competitiveness of the processing sector with a focus on the development of value-added and secondary production, development of underutilized species, and by-product recovery. Assistance is provided in the form of technical and financial support related to product development, design and recommendations on packaging systems to plant processing specifications, processing efficiency and general product research and development.

Aquaculture Development:

The department provides for the administration, planning, development and delivery of aquaculture policy and programs with the goal of ensuring the orderly and sustainable development of aquaculture. This includes the assessment of species and sites, the review of development proposals, and the conducting of research to overcome biological,

technical and/or economic impediments to development. These activities support evidence-based policy decisions leading to an orderly, sustainable aquaculture industry.

Licensing and Quality Assurance

DFA is responsible for the issuance of fish buyers' licenses, fish processing licenses, and aquaculture site licenses, as well as the development and implementation of policies and regulations related to each type of license. The department provides processing licensing policies and procedures to the Fish Processing Licensing Board. The Board reviews all requests for new processing licenses, transfers of licenses, and changes of ownership for fish processing plants and fish buyers. In its role as a licensing agency for aquaculture, as regulated under the *Aquaculture Act*, the department coordinates input from all relevant provincial and federal agencies, as well as any organizations, groups or individuals who have interests in aquaculture development. Other activities include:

Administration of licensing systems and databases:

Administration of the licensing systems and databases includes the collection and analysis of all statistical information associated with fish purchases, production and employment, and cataloguing the current and past history of fish buyers' and fish processing licenses. Through these licensing processes, the department collects processing and aquaculture statistics. Statistics collected include processing plant production, fish purchases, plant employment, production on aquaculture farms, aquaculture employment, fisheries and aquaculture infrastructure, financial information, and inspection information.

Maintenance and delivery of the Quality Assurance Program:

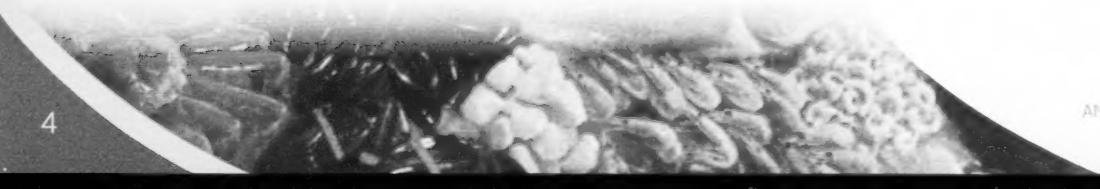
The Quality Assurance Program supports the department's efforts to promote quality awareness in the fishing industry. The department monitors and assesses the quality of fish at dockside, in transport and as it enters plants for processing; develops and evaluates new techniques to assess quality; produces and disseminates information on quality issues to industry participants; and implements measures for quality enhancement.

Seafood Marketing

DFA provides marketing support services to the Newfoundland and Labrador seafood industry and works with industry on innovative and collective approaches to seafood marketing. The department's primary seafood marketing activities include:

Market Development:

The department works with the seafood industry to enhance market awareness within the industry and increase seafood sales to markets in Asia, Russia, Europe and the United



States. Other market support services offered to industry include the organization of trade shows and missions, assistance with market promotions, the development of a qualitative market research and intelligence program, preparation of high-quality promotional materials, and the encouragement of funding private sector marketing initiatives.

Market Intelligence and Analysis:

The department provides market analysis and support to industry by coordinating the collection and dissemination of timely market intelligence information to industry stakeholders. This information is provided to the Standing Fish Price-Setting Panel (in support of fish price collective bargaining initiatives), processor and harvester associations such as the Association of Seafood Producers (ASP), the Seafood Processors of Newfoundland and Labrador (SPONL), and the Fish, Food and Allied Workers (FFAW). Information is also provided to the Newfoundland Aquaculture Industry Association (NAIA) and aquaculture companies.

Outreach:

The department interacts with other provincial government departments, the seafood development branches of other seafood producing provinces, the federal Departments of Agriculture and Agri-Foods, Fisheries and Oceans Canada, and Foreign Affairs and International Trade in order to coordinate various trade shows, missions and other marketing and promotional events.

Mandate

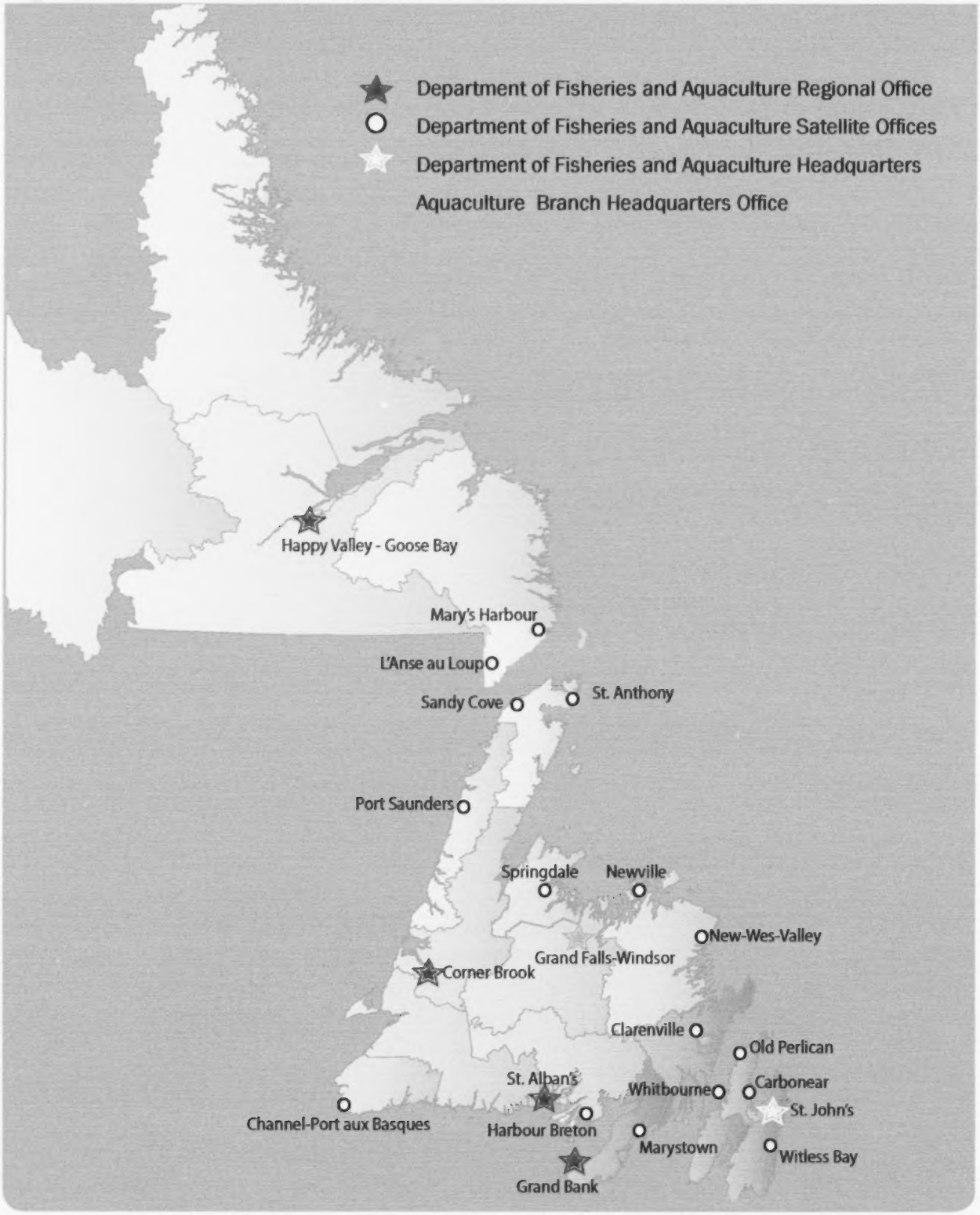
The mandate of the Department of Fisheries and Aquaculture is derived from the *Executive Council Act* and includes *the supervision, control and direction of all matters relating to:*

a. *the promotion, development, encouragement, protection, conservation and regulation of fisheries and aquaculture; and*

b. *the administration of the Acts set out in the Schedule and of all orders and regulations passed or made under those acts, including those powers, functions or duties necessary or desirable for carrying out the purpose of those acts,*

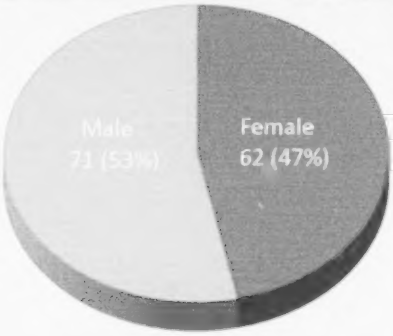
which are not, or insofar as they are not, the responsibility of another minister, agency, body, corporation, board, organization or person.

DFA headquarters is located in St. John's and the Aquaculture Branch main office is located in Grand Falls-Windsor. The department has 3 regional offices and 16 satellite offices situated throughout the province.

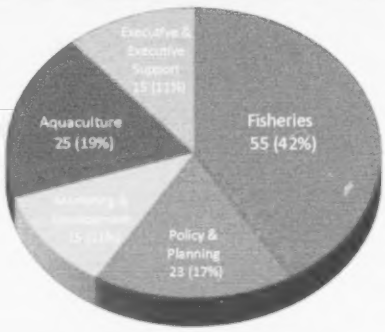


▼ Number of Employees

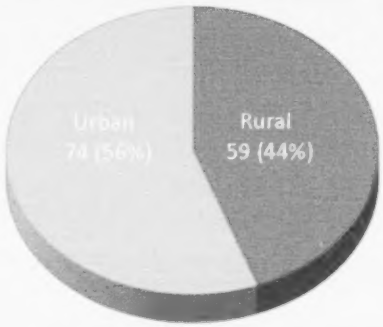
The department employs 133 people, working in four branches: a) Fisheries; b) Aquaculture; c) Marketing and Development; and d) Policy and Planning.



Employee Distribution by Gender



Employee Distribution by Branch



Employee Distribution by Rural/Urban

**For the purpose of this report, urban is defined as St. John's and the metropolitan area.*

Legislation

The department's work is guided by the following provincial and federal legislation:

Provincial Legislation

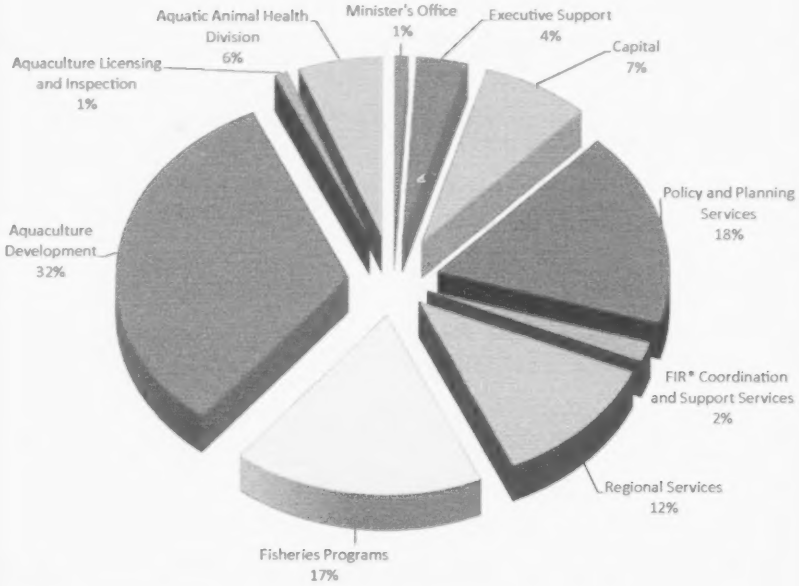
- *Aquaculture Act* and Regulations
- *Business Investment Corporation Act* (Fisheries Loan Guarantee Program)
  - *Fish Inspection Act* and Regulations
  - Fish Inspection Administrative Regulations
  - Fish Inspection Operations Regulations
  - Fish Inspection Ticket Offences Regulations
  - In-province Retail Fish Establishment Regulations
- *Fish Processing Licensing Board Act*
- *Fisheries Act (Schedule C of the Executive Council Act)*
- *Fisheries Restructuring Act*
- *Fishing Industry Collective Bargaining Act*
- *Professional Fish Harvesters Act*
- Fish Processing Licensing Policy Manual

Federal Legislation

- *Fisheries Act*
- *Fish Inspection Act*
- *Oceans Act*
- Marine Mammal Regulations

Distribution of Actual Net Expenditures

2011-12 **All numbers are rounded*



** Fishing Industry Renewal (FIR)*

Department of Fisheries and Aquaculture
Statement (Unaudited) of Expenditures and Related Revenue

Summary for the Year Ended March 31, 2012*	ESTIMATES		
	Original	Amended	Actual
	$	$	$
EXECUTIVE AND SUPPORT SERVICES			
Minister's Office			
Minister's Office	412,900	412,900	290,104
General Administration			
Executive Support	1,141,100	1,146,600	1,121,575
Capital	10,311,300	10,311,300	2,204,695
Policy and Planning Services			
Planning and Administration	985,100	1,204,600	1,072,566
Revenue - Provincial	-2,000	-2,000	-140,572
Sustainable Fisheries Resources and Ocean Policy	4,617,700	4,767,700	4,567,150
Fishing Industry Renewal Strategy			
Coordination and Support Services	1,234,800	1,258,000	550,224
Executive and Support Services Subtotal	**18,700,900**	**19,099,100**	**9,665,742**
FISHERIES			
Regional Services			
Administration and Support Services	3,941,700	3,827,200	3,415,260
Revenue - Provincial	-44,500	-44,500	-3,920
Fisheries Programs			
Seafood Marketing and Support Services	2,101,600	2,296,100	1,667,110
Licensing and Quality Assurance	726,200	698,700	414,324
Revenue - Provincial	-300,000	-300,000	-557,240
Compliance and Enforcement	645,500	589,500	512,795
Fisheries Innovation and Development	4,427,200	4,179,900	2,927,165
Fisheries Development Subtotal	**11,497,700**	**11,246,900**	**8,375,494**
AQUACULTURE			
Aquaculture Development and Management			
Aquaculture Development and Management	3,624,600	3,497,100	2,213,704
Revenue - Provincial	0	0	-150
Aquaculture Capital Equity Investment	8,000,000	8,000,100	8,000,000
Aquaculture Development Subtotal	**11,624,600**	**11,497,200**	**10,213,554**
Aquaculture Licensing and Inspection			
Aquaculture Licensing and Inspection	310,800	311,800	265,068
Aquatic Animal Health			
Aquatic Animal Health	2,217,800	2,196,800	1,890,854
Department Total	**44,351,800**	**44,351,800**	**30,410,712**

*Source Document: Report on Program Expenditures and Revenues of the Consolidated Revenue Fund for the Year Ended 31 March 2011 (Unaudited)

Note: Audited financial statements are not required of the Department of Fisheries and Aquaculture.

Shared Commitments

Throughout the 2011-12 fiscal year, the department worked with industry stakeholders and partners, including other jurisdictions and government departments, academia and public bodies, towards the achievement of mutual goals and commitments.

Enhance the Sustainability of the Provincial Aquaculture Industry

Throughout 2011-12, the department worked with industry stakeholders and other government departments to provide support for aquaculture workforce training and skill development. In line with the strategic directions of government, investing in human resources will enhance sustainable growth and development in the aquaculture industry of Newfoundland and Labrador.

DFA partnered with NAIA throughout 2011-12 in the exploration of certification and standards for the aquaculture industry. In order to certify seafood products, certifiers look for sustainable fishing practices and support for a sustainable industry. The World Wildlife Fund (WWF) is an example of an organization which certifies aquaculture products. Once certified, products will be given a label which indicates the certification obtained.

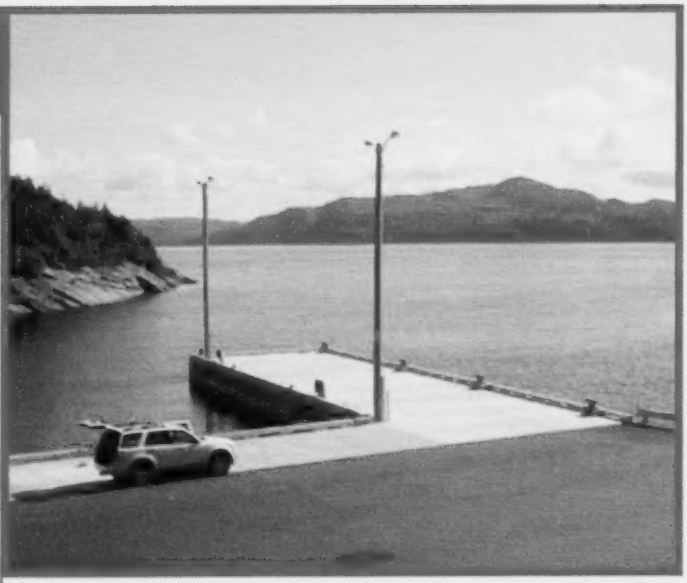
In 2011, aquaculture representatives from the Atlantic provinces collaborated to explore and develop a pan Atlantic fish health program. This program will provide a basis for sound, science-based, validated, and harmonized fish health policies that clearly demonstrate the region's management role.

▼ Aquaculture

The aquaculture industry of Newfoundland and Labrador has experienced rapid growth over a relatively short period of time. As a result, human resource development is considered a key element to ensuring a sustainable aquaculture industry by both government and industry. In 2010, NAIA, with assistance from the provincial government, coordinated a series of courses, known as the workforce training and skill development program, to improve the proficiency of those employed in the aquaculture industry. In May of 2011, DFA provided $43,783 to NAIA to build on the existing workforce training and skill development program. The program will provide training for new entrants and enable those who previously underwent training to acquire a certificate as an aquaculture technician. This program will ensure workers are receiving the latest training in this highly skilled and continually advancing industry. Aquaculture operators will benefit from a workforce that is trained in the latest industry techniques, thereby increasing productivity and enhancing product quality. The continued development of a highly skilled workforce contributes to the sustainable development and growth of the aquaculture industry.

▼ Aquaculture Certification

Certification and standards for the aquaculture industry are goals common to both government and the aquaculture industry. To this end, DFA contributed $75,800 to NAIA to assist in the exploration of certification and standards for the rapidly growing aquaculture industry. The focus of the work was to identify and review existing processes and recommend standards in such areas as food safety, traceability, environmental monitoring and product quality. This work will further position companies operating in the finfish and shellfish farming and processing sectors for future market requirements.



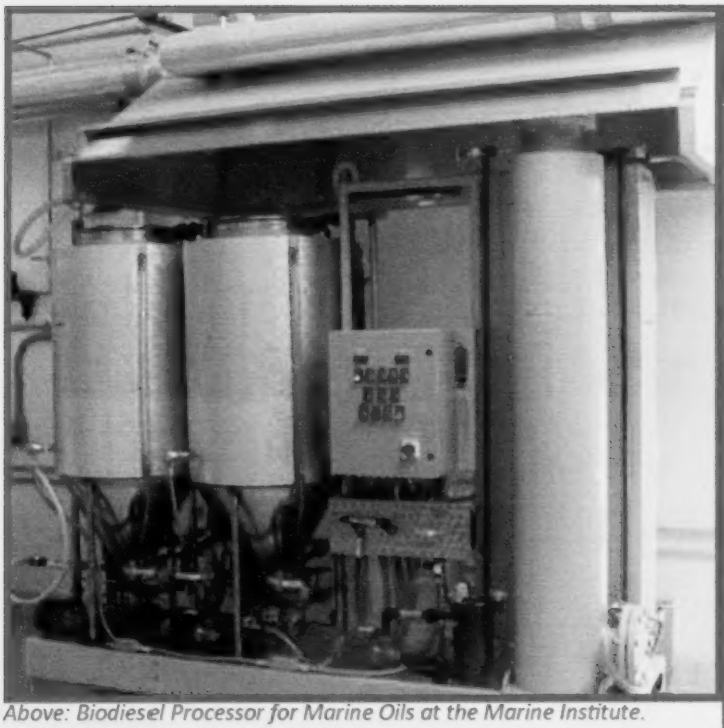
Above: the new aquaculture wharf in Pool's Cove

Strengthen the Role of the Fishing Industry as a Key Pillar of Sustainable Economic Growth within the Province

FTNOP facilitates partnerships with industry, government and academia and provides funding for industry-led research and development projects in the fishing industry. Throughout 2011-12, partners collaborated to enhance seafood production practices, conduct research into the viability of specific fish harvesting practices, research the viability of harvesting whelk, research value-added lobster processing, conduct environmental research into seabed mapping efforts, enhance seafood product promotion, test new harvesting equipment for the turbot pot fishery, establish high-pressure processing projects and research fish oil biodiesel. DFA invested $1.4 million in fisheries research and development projects under FTNOP throughout the fiscal year. This investment has leveraged an additional $4.4 million from the fishing industry and other partners.

During 2011-12, department officials, in partnership with industry stakeholders, attended seafood trade shows (the International Boston Seafood Show, European Seafood Exposition, World Food Moscow, and China Fisheries and Seafood Exposition) to promote seafood products to global buyers and stakeholders. This is critical to the fostering of opportunities for our province in international seafood markets.

The department collaborated with the FFAW throughout the year to increase fisheries sector efficiencies through the FFAW-managed Fisheries Stewardship Program. The goal of the Fisheries Stewardship Program is to have fish harvesters work together to share knowledge



Above: Biodiesel Processor for Marine Oils at the Marine Institute.

and develop the tools necessary to adopt sustainable harvesting practices.

Throughout the fiscal year, DFA and the federal government supported the development and implementation of a lobster sustainability and conservation plan by the FFAW. The plan places emphasis on removing excess capacity to allow those harvesters remaining in the industry the potential to enhance their incomes. Both levels of government have committed to contributing over $9 million each, with an industry contribution of $12 million. The conservation and stewardship efforts aim to improve lobster population productivity and ensure adequate fisheries, biological and ecosystem impact information is gathered to support fisheries management and science processes. The plan is comprised of the following elements:

- a science and conservation plan to be implemented in all 12 Newfoundland and Labrador Lobster Fishing Areas (LFAs); and
- in southwestern and western Newfoundland (LFA11-14b)
  - a trap reduction initiative
  - the Lobster Enterprise Retirement Program.

▼ FTNOP

DFA partnered with industry (Cooke Aquaculture, Allen's Fisheries, and Seaward Farms), the Department of Innovation, Business and Rural Development (IBRD), the Canadian Centre for Fisheries Innovation (CCFI), the National Research Council Canada and the Centre for Aquaculture and Seafood Development to establish a demonstration biorefinery that will convert fish oil into biodiesel fuel. In February 2012, the department provided $89,100 in funding through the Fisheries Technology and New Opportunities Program toward this initiative. The Centre for Aquaculture and Seafood Development continued research in the area of marine bioprocessing. This initiative will develop processing methodologies to utilize marine waste oils from the salmonid aquaculture, pelagic, and the sealing industries as biodiesel feedstocks. This initiative is an expansion of previous work undertaken by the Marine Institute (MI) where a biodiesel refining unit was acquired and processed salmon oil and cod oil into useable biodiesel.

▼ Seafood Promotion

DFA partnered with other fisheries and aquaculture departments in the Atlantic provinces and the Atlantic Canada Opportunities Agency to enhance the online promotion of seafood through the Atlantic Canada Exports website (www.atlanticcanadaexports.ca). The website connects national and international buyers to local seafood processing companies and also serves as a resource for Atlantic Canadian seafood processors.

The department also partners with the Atlantic provinces and the federal government on international trade shows and promotions. This includes attending World Food Moscow, participating in an Atlantic Canada pavilion at the International Boston Seafood Show, and Canadian pavilions at the European Seafood Exposition and the China Fisheries and Seafood Exposition. The Atlantic provinces, Quebec and British Columbia also work together to develop joint advertising for trade shows and industry publications as well as in-market promotional activities. Through these collaborations, we are able to access federal funding programs, promote Atlantic Canadian seafood to international buyers, and have a wider profile through the use of the Canada Brand. It is also a cost-effective means for DFA and industry partners to attend international events.

Enhance the Province's Position on Fisheries and Ocean Matters falling under Federal Jurisdiction

While the federal government has jurisdiction over fisheries resource management and harvesting, the federal, provincial and territorial governments each have interests and responsibilities in the fishing industry. It is this common interest that creates the opportunity for these government bodies to work together to protect the resource and ensure it is managed to the benefit of all. Throughout the fiscal year, the department continued to avail of opportunities to work with the federal government and other provincial and territorial governments to this end. In so doing, a number of events occurred, including:

- The department worked with the federal government on fisheries management matters. Minister Darin King met with the Honourable Keith Ashfield, Minister of Fisheries and Oceans Canada, and the Honourable Peter Penashue, Regional Minister for Newfoundland and Labrador, Minister of Intergovernmental Affairs and President of the Queen's Privy Council for Canada, several times throughout the year to resolve fisheries issues

important to the province. For example, based on provincial concerns about the allocation principles for the northern shrimp fishery, DFO undertook a review of the last-in, first-out (LIFO) policy in that fishery and DFA submitted a comprehensive position paper to inform the review.

- Meetings of the Canadian Council of Fisheries and Aquaculture Ministers (CCFAM), associated committees, task groups, and working groups, and the Atlantic Council of Fisheries and Aquaculture Ministers provided additional opportunities for collaboration with federal, provincial and territorial partners on a variety of fisheries and aquaculture issues, such as European and Asian trade barriers, the impact of aquatic invasive species, safety issues and the approval of a National Framework for Canada's Network of Marine Protected Areas.

- In February 2012, the Minister of Fisheries and Aquaculture joined representatives of the federal government and industry in demonstrating unified support for the Canadian sealing industry by participating in Seal Day on the Hill.

▼ Seafood Sales Consortia

Government is committed to working with industry to establish a number of seafood sales consortia and improved access to inventory financing for the province's fishing industry. To achieve this objective, DFA held a Seafood Sales Consortia Forum on December 7, 2011, with industry partners. The meeting was a frank and open discussion of the challenges facing the province's fishing industry. Following the forum, a number of seafood processing companies expressed interest in investigating the requirements and opportunities to establish sales consortia, and the associated inventory financing options. The establishment of sales consortia provides a more coordinated approach to sales and marketing which will help achieve better returns from the marketplace. Inventory financing options will enable sales consortia to have a greater ability to hold product in inventory for an extended period to allow for a more orderly release of product into the marketplace than is currently the practice in the industry.

▼ Canadian Sealers

The department partnered with the FFAW and the Professional Fish Harvesters Certification Board to support the reorganization of the Canadian Sealers Association and the establishment of a new office. The department contributed $68,000 to this initiative. The office opened in October 2011 and will be the provincial focal point for activity related to sealing. It will be an important resource to sealers, guiding advocacy and promotional efforts, providing information about training and certification opportunities, and managing the administration of key records and statistics.

Minister Darin King and Health Minister Leona Aglukkaq, 2012 Seal Day in Ottawa.

- In September 2011, DFA officials attended the 33rd Annual Meeting of the Northwest Atlantic Fisheries Organization (NAFO). It is through this venue that countries including the European Union (EU), Norway, Iceland, Russia, Ukraine, Japan, Korea, Cuba, Canada, USA, France (in respect of Saint-Pierre et Miquelon), and Denmark (in respect of Faroe Islands and Greenland) meet annually for a week of discussions regarding fisheries management and conservation of stocks straddling the 200-mile limit, as well as those on the Flemish Cap.

The department further demonstrated its commitment to the sustainable management of the fishing industry through its involvement with the Centre for Fisheries Ecosystems Research (CFER) and partnering with FFAW, DFO, MI, WWF and industry on research initiatives. The sustainable management of the fishing industry is a component of government's strategic direction to enhance the province's position on fisheries and ocean matters falling under federal jurisdiction.

Tapping into a shared interest in ensuring optimal use of our coastal and ocean resources, DFA has taken the lead in collaborating with other government departments and agencies, industry stakeholders and user groups, including:

Emily Zimmermann, winner of the Dr. Wilfred Templeman Memorial Scholarship.

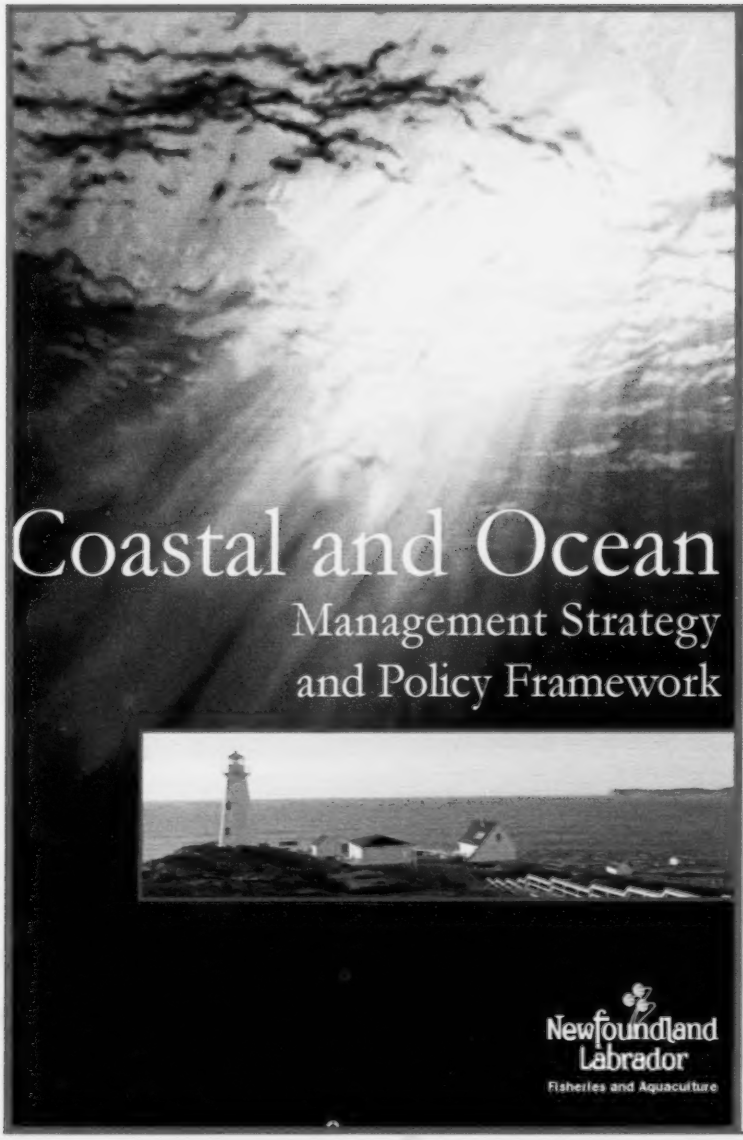
- The department chairs the Provincial Coastal and Ocean Network (PCON), which provides a vehicle for provincial departments' engagement in coastal and ocean policy development and activities.

- The department participates on the Canada-Newfoundland and Labrador Committee on Coastal and Oceans Management, a forum to facilitate information exchange between governments and across departments to strengthen existing processes and avoid duplication of efforts.

- The department is engaged with stakeholders, as well as provincial and federal representatives, on Large Ocean Management Area committees to support research, conservation and sustainable resource use in the region through facilitated coordination and information exchange.

▼ GROUNDFISH RESEARCH

Throughout the fiscal year, the department provided $466,000 to the FFAW, DFO, MI, WWF and industry. This funding was used for a number of projects that focused on cod, such as an inshore cod survey using mobile gear, research on the abundance and spatial distribution of Northern Gulf cod, studies on the spawning origin and migration history of cod in the waters off Newfoundland and Labrador, and initiatives to ensure the sustainability of southern Newfoundland cod. The funding also covered research projects in relation to other species, including a lobster monitoring project, a post-season modified trap survey for snow crab, and a study to assess the effects of Grey seals on cod quality and abundance. Scholarships are also part of this funding, and have been established for both graduating high school students and for students pursuing a graduate program at Memorial University of Newfoundland (MUN), in which groundfish research is the main focus.



▼ Coastal and Ocean Management Strategy and Policy Framework

On June 16, 2011, the provincial government released the Coastal and Ocean Management Strategy and Policy Framework with an investment of $900,000 over three years, as announced in Budget 2011. The province is the first jurisdiction in Canada to implement such a strategy, which provides a long-term vision for planning and management, conservation and sustainable use of the province's coastal and ocean areas and resources through collaboration with industry stakeholders, government departments, agencies and user groups. Partners include MUN, FFAW, MI, environmental non-governmental organizations, educational institutes, coastal management area committees and community groups.

Through the Committee on the Status of Endangered Wildlife in Canada, the department participates in discussions on the status of marine fish populations. To enable communities to play a stronger role in coastal and ocean management issues affecting their regions, the federal government, with provincial government support, established the Coastal Management Areas (CMAs). Partners from governments, businesses, local industries, communities, academia and other stakeholders participate on the CMA committees.

1 STRATEGIC ISSUE

Fishing Industry Sustainability and Viability

Goal 1: By March 31, 2014, the Department of Fisheries and Aquaculture will have supported the fishing industry in becoming more sustainable and internationally competitive.

Objective 1: By March 31, 2012, the Department of Fisheries and Aquaculture will have undertaken initiatives to improve fishing industry sustainability and international competitiveness.

Measure: Initiatives are undertaken to improve fishing industry sustainability and international competitiveness.

Opening Discussion

The fishing industry is a key employer in the Province of Newfoundland and Labrador and a significant contributor to the provincial economy, particularly in rural areas. The future prosperity of the sector is strongly influenced by the initiatives DFA undertakes to improve its sustainability and international competitiveness. As such, DFA has a key interest in investing in fisheries science, investing in research for sustainable fishing practices, and promoting sustainable fisheries management to enable the viability of the industry for generations to come.

Today's global marketplace is demanding and industry must continue to grow and diversify. Eco-certification requirements are becoming increasingly important in the global marketplace. As well, innovation and technology must be advanced in our harvesting and processing sectors in order to compete internationally. DFA strives to develop positive partnerships and works with, and on behalf of, industry to assess and pursue opportunities related to the future of the sector. These endeavours reflect government's strategic direction to strengthen the role of the fishing industry as a key pillar of sustainable economic growth within the province.

Indicator 1.1: Promoted sustainable fisheries management.

DFA promotes a consistent policy approach with priorities that reflect sustainable fisheries management. The federal government has jurisdictional authority over harvesting. As such, the province must advocate its position on sustainable fisheries management to the federal government. Our investments in fisheries science (see Indicator 1.2) provide the necessary knowledge and information that allow the department to formulate informed positions around sustainable fisheries management. During the fiscal year, the department:

- Actively promoted measures to DFO for improving or ensuring the sustainable management of straddling fish stocks, in part through letters and in meetings with the Minister of Fisheries and Oceans Canada. The department also joined various working groups of federal and industry representatives to assess the sustainability of key groundfish stocks important to the province and to develop management plans for these stocks in accordance with national and international obligations for sustainable fisheries management;
- Participated in national and international meetings within NAFO context to promote management measures to improve or ensure the sustainability of fish stocks managed under NAFO. DFA promoted its consistent position that the management of straddling fish stocks should be conservative, based on sound scientific advice, and supportive of sustainable fisheries management, thereby promoting the province's objective of sustainable fisheries management. DFA also promoted measures that aligned with emerging fisheries management approaches such as the Precautionary Approach and Ecosystem-Based Management Approach, which Canada has committed to internationally in order to ensure fishing industry sustainability and to increase international competitiveness;
- Promoted the province's position on conservation and management measures, particularly with respect to Total Allowable Catches, at various advisory meetings;
- Assessed current substantive issues in relation to the sustainable management of Newfoundland and Labrador's fisheries resources, and corresponded with the Minister of DFO on these key issues. These included voicing support for a permanent proportional sharing arrangement to be established between the inshore and offshore sectors in Shrimp Fishing Area 6 for northern shrimp, expressing concern over the impacts of Harp seals on the province's cod stocks, and advocating for a plan to address these impacts;
- Supported eco-certification through collaboration with industry, DFO, and WWF to improve the sustainable management of Newfoundland and Labrador's largest cod fishery (3Ps). Eco-certification has become an increasingly important tool for improving both sustainable fisheries management and international competitiveness; and
- Continued to participate in annual meetings to promote sustainable fisheries management measures for stocks that Canada co-manages with France.

Indicator 1.2: Invested in fisheries science.

A sound understanding of the status and health of the province's fisheries resources is imperative to informing those decision-making processes that strive to ensure the sustainable management and the long-term sustainability of the resource. A thorough knowledge of our fisheries resources also helps ensure their economic viability. Sustainable fisheries management is also an increasingly important component of eco-certification.

A fishery must demonstrate it is being conducted in a sustainable manner to achieve eco-certification. Investing in fisheries science initiatives is key to enhancing understanding of the province's fisheries resources. Noting the need for enhanced knowledge of our province's fisheries resources, in the 2011-12 fiscal year the department invested in fisheries science by:

- Providing $3,350,000 to fund the 2011-12 activities of CFER to increase fisheries science capabilities in Newfoundland and Labrador. The knowledge gained through CFER will help inform decisions that promote sustainable fisheries management and will also enable the province to more effectively participate in fisheries decision-making processes.
- Providing $467,000 in funding, through the Fisheries Research Grant Program, to industry, academia, and DFO for collaborative research initiatives that enhance our scientific understanding of the province's fish stocks. Research results are used to inform sustainable management decisions.
- Expanding the Fisheries Research Grant Program in 2011-12 to include research on other commercially harvested species. This allows projects to be conducted on highly valuable species such as snow crab and lobster. The results of this research will also be used to inform sustainable management decisions for these species.

Indicator 1.3: Increased market research.

In 2011-12, DFA increased market research spending by approximately 38 percent over previous years. The funds enabled the department to engage in the following additional activities:

- Hired a US seafood marketing consulting company to provide a yellowtail and redfish market report;
- Identified key areas where market research could be improved. As a result, the department hired a consultant to perform research on whelk;
- Provided the FFAW, ASP, SPONL, and the Standing Fish Price-Setting Panel access to a seafood industry expert who was able to provide an update on the current market situation for snow crab;
- Hired a Norwegian consulting company to provide industry with a salmon market report;
- Invested in additional marketing reports for various species so as to respond to diverse industry needs; and

- Worked with the Export Market Analysis Consortium to create a survey to provide to those companies that participated in the China Fisheries and Seafood Exposition in 2011. The survey identified areas where DFA can provide useful information to companies preparing to enter or further pursue opportunities in China.

Indicator 1.4: Researched eco-certification requirements pertaining to various markets and species.

In 2011-12, through its involvement in CCFAM and its membership in the federal/provincial/territorial Task Group on Eco-certification, DFA participated in researching eco-certification requirements pertaining to various markets and species. The task group, comprised of representatives from the federal government and various provinces and territories, researched the following:

- The requirement for a government-led strategy on eco-certification;
- Industry and government issues associated with eco-certification;
- The status of eco-certification in Canada;
- Alternate eco-certification approaches; and
- An updated market risk analysis for eco-certification.

The task group examined issues which included international market demands, the experience of Canadian industry and governments with certification, and emerging approaches to certification that have arisen since the group completed the National Strategy on Eco-certification in 2008. Through its work with this task group, the province has access to information on the status of eco-certification across Canada and internationally.

DFA also completed online research related to consumer knowledge of eco-labels, different programs that exist, the emergence of programs developed or sanctioned by the Food and Agriculture Organization of the United Nations, what is being done in other regions, and customer response to certification schemes. Based on this information, a letter was prepared for the Fisheries Council of Canada to inform its proposal on the development of a Canadian certification and traceability standard.

Indicator 1.5: Researched options pertaining to technology applications in harvesting and processing.

While DFA does not undertake direct research into new technology, it is through the provision of funds via FTNOP that the department supports research pertaining to technology applications in harvesting and processing. In this way, the department supports initiatives intended to lead to improved fishing industry sustainability and international competitiveness. To this end, DFA partnered on the following initiatives:

Processing projects pertaining to technology applications:

- An automated crab meat-shell separator/spin sheller: DFA provided funding to investigate the potential for using spin sheller technology to extract crab meat from lower valued broken crab shoulders; and
- Quality enhancement mussel production: DFA provided funding to assess current operating practices in terms of production efficiencies and quality enhancements.

Harvesting projects pertaining to technology applications:

- The final phase of an e-simulator distance education tool for vessel stability. This project provided fish harvesters with the technology to learn about fishing vessel stability and safety; and
- Year three of an operational energy efficiency audit: This project increased energy efficiency in the fish harvesting sector and assisted industry to identify energy saving alternatives through technology applications.

Indicator 1.6: Conducted research into sustainable fishing practices.

The department collaborated with stakeholders to conduct research projects that contributed to sustainable fishing practices. Projects for 2011-12 included:

- Sea trials for the evaluation of a species/size-sorting grid: DFA provided $24,394 to the MI's Centre for Sustainable Aquatic Resources to conduct at-sea evaluations of a new species/size-sorting grid under commercial fishing conditions aboard an offshore factory freezer trawler. MI staff monitored catch to determine shrimp size selection, compare catch performance to a control trawl and record by-catch levels of small finfish. This species/size-sorting grid has a sorting system that allows for the separation of non-targeted species and the separation of undersized shrimp using a single grid. This results in a cleaner, higher quality/value catch. Species/size-sorting grids could improve economic benefits in the shrimp industry and also improve resource sustainability.
- Reduced seabed impacts of bottom trawls: DFA provided $50,000 in funding to MI's Centre for Sustainable Aquatic Resources to develop environmentally friendly bottom trawls that will reduce seabed impacts, thus enhancing

sustainable fishing practices.

Indicator 1.7: Worked to expand market access.

In 2011-12, DFA partnered with other government and industry stakeholders on projects to expand market access, including:

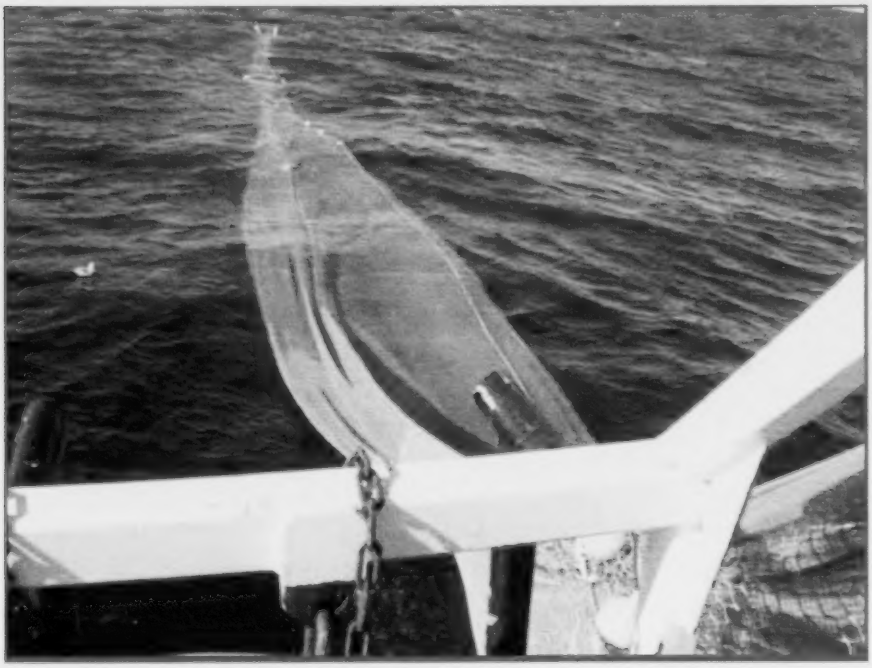
- Worked with IBRD and attended Comprehensive Economic and Trade Agreement (CETA) meetings, debriefs, conference calls and rounds of negotiations to ensure provincial government interests with respect to the fisheries are advanced to the federal government negotiators. The provincial government's goal is real market access, including the elimination of tariffs on seafood and mechanisms to deal with non-tariff barriers to provide significant benefits for the Newfoundland and Labrador seafood industry. Negotiations are ongoing.
- DFA assisted with initiatives that promote the province's sealing industry and worked to expand market access for seal and seal products as part of its sealing industry communications, advocacy and development strategy. In particular, the department:
    - Collaborated with federal, provincial, and territorial stakeholders to address market access issues for seals, including international issues involving China and the EU, seal product diversification and market development, opening markets, and challenging discriminatory trade restrictions.
    - Met with Department of Foreign Affairs and International Trade officials to exchange information on the World Trade Organization (WTO) challenge on the EU seal products ban.
    - Worked with industry, DFO, and the Canadian Embassy on seal product market development in China.
    - Pressed the federal government to ensure all efforts to revoke a seal ban in Russia, Belarus and Kazakhstan were initiated. Minister Darin King wrote Minister Keith Ashfield supporting the work that the Government of Canada is doing to pursue WTO action and encouraged the federal government to continue efforts to eliminate the barriers preventing access to Chinese and European markets.
    - Collaborated on initiatives of the Fur Institute of Canada's Seals and Sealing Network Committee to open markets.
- Work is ongoing with respect to expanding market access for seal products.

Discussion of Results

Throughout the 2011-12 fiscal year, DFA undertook initiatives to improve the viability and sustainability of the fishing industry. The global fishing industry is constantly changing as new products, technologies, and processes evolve. The department contended with challenges facing the fishing industry and worked to realize industry opportunities. To improve international competitiveness, the department increased

market research. To support the sustainability of the industry, the department promoted sustainable fisheries management in various venues, invested heavily in fisheries science through CFER and the Fisheries Research Grant Program, and researched options for new technology advancements in our harvesting and processing sectors. Our investments in fisheries science allowed the department to formulate informed positions with respect to numerous sustainable management processes, to be strategic in its presentation and to support eco-certification within the industry. FTNOP was key in research and development work in the harvesting and processing sectors, with emphasis on more efficient utilization of traditional species, innovative approaches to harvesting and processing, sustainable fishing practices and enhanced value realization of all fisheries resources.

The focus on sustainability and eco-labelling continues to grow in key markets for Newfoundland and Labrador seafood products. As such, DFA supported and participated in researching areas where Newfoundland and Labrador products could benefit from eco-certification. DFA also worked with industry to expand market access by providing funding to companies, attending meetings aimed at improving market access, corresponding with other agencies and stakeholders, and generally staying informed on market access issues. Through all these activities, the sustainability and viability of the province's fishing industry was the foremost priority.



Improving the fuel efficiency of the Newfoundland and Labrador shrimp trawl on the FV Atlantic Challenger.

STRATEGIC ISSUE 1

Commitment for 2012-2013

Objective 2:
By March 31, 2013, the Department of Fisheries and Aquaculture will have furthered initiatives to support industry sustainability and international competitiveness.

Measure:
Furthered initiatives to support industry sustainability and international competitiveness.

Indicators:

- Continued to promote sustainable fisheries management.
- Continued work to expand market access and address seafood tariffs in key markets.
- Worked with industry to expand market opportunities.

2 STRATEGIC ISSUE

Aquaculture Expansion and Sustainability

Goal: By March 31, 2014, the Department of Fisheries and Aquaculture will have facilitated the expansion and sustainability of the aquaculture industry.

Objective 1: By March 31, 2012, the Department of Fisheries and Aquaculture will have established initiatives to support the expansion and sustainability of the aquaculture industry.

Measure: Established initiatives to support the expansion and sustainability of the aquaculture industry.

Opening Discussion

Throughout the past six years, the aquaculture industry of Newfoundland and Labrador has experienced tremendous growth. This trend continued into 2011 as production continued to expand and market values increased. Production rose 12.4 percent, from 15,360 tonnes in 2010 to 17,264 tonnes in 2011. The total market value increased 1.8 percent, from $118 million in 2010 to $120 million in 2011. This growth was facilitated by the continued expansion of the salmonid sector and a rebounding mussel sector throughout 2011. Salmonid production is projected to continue growing. Mussel production and market value are expected to be stable over the next few years.

The Newfoundland and Labrador aquaculture industry directly employs close to 1,000 people. The province has provided support to industry to ensure continued growth in the aquaculture sector and introduced measures to ensure growth proceeds in a sustainable manner. Throughout the current planning cycle, the department has focused on enhancing access to capital, infrastructure and biosecurity. This work supports government's strategic direction to enhance the sustainability of the provincial aquaculture industry.

Indicator 2.1: Determined the biological, technical and economic sustainability of the bays west of Facheux Bay and east of Grey River for salmonid aquaculture.

This indicator was not met in the 2011-12 fiscal year due to unanticipated technical difficulties with remote sensing stations that the department was unable to remediate in the reporting year. As a result, the department was unable to determine the sustainability of the bays west of Facheux Bay and east of Grey River for salmonid aquaculture in 2011-12; however, substantial work was still done to further this indicator.

The work completed in the 2011-12 fiscal year contributed to the first phase of a multi-year process. Remote sensing stations have been deployed to collect information on wind speed, air temperature, wave

height, water temperature, salinity, and dissolved oxygen. After deployment, technical difficulties arose with the sensing stations during this year. These difficulties were outside the control of the department. The data collected by these weather stations is vital to determining the sustainability of the bays. The system has been redeployed and information gathering continues and an assessment of each bay will be completed utilizing historical data and data gathered from the stations.

Indicator 2.2: Developed sustainability priorities for industry expansion.

Prior to 2011-12, the department established interdepartmental working groups to explore priority areas with respect to sustainable aquaculture in Newfoundland and Labrador. There were three pillars identified: infrastructure (wharves, roads, air access and telecommunications); sustainability (net cleaning, wastewater treatment, fish disposal, operational debris and environmental measures); and support capacity (communication, investment and human resources).

In 2011-12, to further develop the sustainability priorities for industry expansion, the Aquaculture Sustainable Management Committee was created and co-chaired by DFA and NAIA. The committee was tasked to prioritize and facilitate dialogue on waste management projects. The committee established waste management priorities and continued dialogue with industry and regulatory stakeholders. Throughout the fiscal year, the department also engaged NAIA, individual companies and federal and provincial departments to consider and confirm the identified sustainability priorities for industry expansion, specifically wharves, net cleaning and waste management. The department has worked to advance each of these initiatives throughout the fiscal year.

Indicator 2.3: Commenced baseline socio-economic assessment.

This indicator was partially met in the 2011-12 fiscal year. By the end of the fiscal year, the preparatory work, including the planning process for the baseline socio-economic assessment, neared completion. To establish a baseline socio-economic assessment which will provide useful results, collaboration with other departments requires more time than was anticipated.

The baseline socio-economic assessment is a multi-year project, the first phase of which is the preparatory work necessary to collect the data. In this fiscal year, DFA completed the following components of this initiative:

- Conducted an internal assessment of current data quality and availability;
- Determined data gaps for completion of a socio-economic assessment;
- Engaged other departments to aid in collecting information for the assessment as well as to refine the scope and survey requirements; and
- Undertook a jurisdictional review of socio-economic assessments to help inform the process in this province and identify the types of data required for the assessment.

Indicator 2.4: Completed identification of Production Based Regions (PBRs).

A PBR is a geographical area which is determined based on the available infrastructure for aquaculture harvesting and development, number of growers, and traffic flow in an area.

STRATEGIC ISSUE 2

Commitment for 2012-2013

Objective 2:
By March 31, 2013, the Department of Fisheries and Aquaculture will have furthered initiatives to promote expansion and sustainability of the aquaculture industry.

Measure:
Furthered initiatives to promote expansion and sustainability of the aquaculture industry.

Indicators:

- Continued baseline socio-economic assessment.
- Begun implementation of Production Based Regions.
- Continued assessment of new growing areas for aquaculture.

PBRs are established to increase the overall biosecurity of the province's aquaculture industry by separating harvesting areas from one another to reduce the transmission of infectious disease in the event of a breakout. Through consultations with representatives from NAIA, DFO and growers, the department decided to identify Biosecurity Management Zones (BMZs) rather than PBRs due to the greater focus on biosecurity under BMZs.

Three BMZs were identified and will be managed based on sound biosecurity protocols which in turn are based on sound biosecurity practices. The identification and management of BMZs support both the sustainability of the aquaculture industry and its sustainable expansion. The department has committed to facilitating the expansion and sustainability of the aquaculture industry by March 31, 2014.

The cornerstone of this work is biosecure wharves. To date there are two biosecure wharves in operation within the three zones and two additional wharves are in various stages of the construction process. The identification of the three BMZs in combination with oceanographic information will in turn lead to the identification of Bay Management Areas (BMAs) which will further enhance the biosecurity of this important industry.

In addition to identifying the zones, the department met with the BMA Technical Committee to discuss how the BMZs will work, risk factors for sound biosecurity and the development of a protocol document.

Discussion of Results

The aquaculture industry is becoming an increasingly important contributor to provincial and regional economies and well-being. For this reason alone, it is essential that initiatives are established to support the expansion, viability and sustainability of the aquaculture industry. The department has worked diligently throughout the fiscal year towards this goal. The department commenced the first phase of the baseline socio-economic assessment, successfully completed the identification of three BMZs and also partnered with industry to identify and develop sustainability priorities for industry expansion. Although technical issues with the weather stations caused a delay in the completion of assessment of the biological, technical and economic sustainability of the bays west of Facheux Bay and east of Grey River for salmonid aquaculture, significant progress was achieved in regard to this initiative. This initiative will determine the suitability of this area for aquaculture and, in combination with the identification of the three BMZs and sustainability priorities, is being undertaken in support of the expansion of the aquaculture industry. These initiatives support government's strategic direction for a sustainable aquaculture industry by ensuring the sustainable growth and development of the industry.

3 STRATEGIC ISSUE

Coastal and Ocean Management

Goal: By March 31, 2014, the Department of Fisheries and Aquaculture will have advanced a coordinated approach to coastal and ocean management in the province.

Objective 3: By March 31, 2012, the Department of Fisheries and Aquaculture will have commenced coordination of policy development and action planning to advance the coastal and ocean management strategy.

Measure: Commenced coordination of policy development and action planning to advance the coastal and ocean management strategy.

Opening Discussion

Coastal areas play a significant role in the well-being of the province, not only economically, but also socially and culturally. The Department of Fisheries and Aquaculture has taken the lead in the coordination of coastal and ocean policy in the province and in cooperation with other provincial departments and agencies. Coastal and ocean activities must be managed effectively and supported by well-informed stakeholders so as to guarantee a balance between a healthy environment and a strong economy. The Government of Newfoundland and Labrador has recognized this need and is committed to increasing efforts to address coastal issues and challenges faced by the province.

The department led the development of the Coastal and Ocean Management Strategy and Policy Framework which was released on June 16, 2011. The strategy provides long-term vision for planning, management, conservation and sustainable use of the province's coastal and ocean areas and resources. Newfoundland and Labrador is the first province in Canada to develop this type of strategy. The strategy is a shared responsibility of various levels of government and stakeholders and supports government's strategic direction to enhance the province's position on fisheries and ocean matters falling under federal jurisdiction, in particular ocean policy and the sustainable management of the fisheries.

Indicator 3.1: Finalized the Coastal and Ocean Management Strategy.

The Coastal and Ocean Management Strategy and Policy Framework has been finalized, approved by government and was publicly released on June 16, 2011. This strategy will help guide and facilitate provincial action towards a coordinated and strategic approach to coastal and ocean management and policy development. It is not the intention of this

strategy to resolve all coastal issues identified in the province or override existing structures and departmental responsibilities; rather, it will provide a mechanism for communication between provincial government departments and agencies and with stakeholders, and provide guidance for coastal and ocean policy development.

Three over-arching strategic directions for integrated coastal and ocean management in the province are promoted within the strategy: a coordinated approach, information and research, and education and awareness. The strategy also outlines directions for developing policies and actions to address priority coastal and ocean issues recognized for the province:

1. A healthy marine environment;
2. Social, cultural, and economic sustainability;
3. Coastal land use;
4. Competing needs and interests;
5. Coastal and marine infrastructure; and
6. Climate change.

Indicator 3.2: Promoted the strategy within government.

DFA has promoted the strategy within the federal, provincial and territorial governments. The department has presented the strategy and distributed copies to partners to ensure they are aware of the strategy and its components and to identify opportunities for collaboration within the strategy. Departmental officials presented the strategy to a meeting of the Canada-Newfoundland and Labrador Committee on Ocean Management, internally during regional and divisional staff meetings, and to provincial and federal government departments.

Departmental officials also distributed copies at the CCFAM meeting in September 2011, to federal, provincial and territorial counterparts, and mailed copies of the strategy to all provincial departments and agencies, along with a letter from the Minister of Fisheries and Aquaculture, indicating DFA's desire to continue to work cooperatively on coastal issues across the province.

Indicator 3.3: Finalized the Terms of Reference for the Provincial Coastal and Ocean Network (PCON).

DFA chairs PCON, working with 11 other provincial departments with interests in coastal and ocean areas. DFA developed a draft Terms of Reference and a memo which was sent to Deputy Ministers of departments and agencies represented on PCON, for their review and discussion at the October 18, 2011, PCON meeting. At that meeting, PCON approved the Terms of Reference.

Indicator 3.4: Commenced the development of action items.

In 2011, members of PCON were asked to compile a list of current, ongoing activities and potential opportunities for projects, to assist in the development of action items. By the end of the fiscal year, a list of coastal and ocean initiatives within the provincial government was compiled. Discussions with other departments/agencies on the implementation of action items within their respective departments are ongoing through PCON.

Funding is secured for projects, including coastal management area committees, which advance action items identified in the strategy. The 2011-12 coastal and ocean grants budget was fully committed.

In addition, discussions were held with the Atlantic Coastal Zone Information Steering Committee regarding coastal information/data collection and sharing needs. Discussions were also held with the Ocean Learning Partnership regarding collaboration on the ocean education initiative for schools.

Discussion of Results

Throughout the 2011-12 fiscal year, the department led policy development and action planning to advance the coastal and ocean management strategy. This is in line with enhancing the province's position on fisheries and ocean matters falling under federal jurisdiction, which is a strategic direction of government.

The Coastal and Ocean Management Strategy and Policy Framework was approved by government in 2011 and publicly released. DFA promoted the strategy within government by distributing copies to federal and provincial departments and agencies, and presenting the strategy to various government departments and agencies. The strategy is also available on the DFA website.

DFA also finalized the Terms of Reference for PCON this year and began facilitating the implementation of the strategy through action planning.

STRATEGIC ISSUE 3

Commitment for 2012-2013

Objective 2:
By March 31, 2013, the Department of Fisheries and Aquaculture will have commenced the implementation of action items and continued policy development to further advance the coastal and ocean management strategy.

Measure:
Commenced the implementation of action items and continued policy development to further advance the coastal and ocean management strategy.

Indicators:

- Worked with other departments and stakeholders to implement action items.
- Continued to develop new action items.
- Promoted awareness and engagement of stakeholders of coastal and ocean management.

Fishing Industry Opportunities and Challenges

The Department of Fisheries and Aquaculture is positioned and ready to examine and exploit opportunities for the harvesting, processing and marketing of seafood products and diversification of the province's fishing industry. DFA worked closely with industry stakeholders to capitalize on the following opportunities and to address the following challenges in the industry throughout the fiscal year:

Opportunities

Marketing Opportunities

- Increased global seafood consumption
- Diversified high-end markets
- Opportunities from trade agreements to increase international presence and market access
- Eco-certification for Newfoundland and Labrador fisheries and product traceability initiatives to enhance market access
- Increased opportunities for research and development to extract optimal value from available resources through FTNOP

Processing Sector Opportunities

- Potential for improved viability from fish processing licensing policy revisions
- Increased research and development opportunities through FTNOP
- Enhanced quality initiatives through the Quality Assurance Program
- Increased energy efficiency initiatives to reduce costs
- Innovation in secondary and value-added processing, providing access to new markets

Harvesting Sector Opportunities

- Science and research capabilities to assist with resource sustainability
- Create economic benefits from a renewable resource
- Potential for more input into the federal government's resource management process

- Enhanced Fisheries Loan Guarantee Program to address capital requirements
- Small vessel energy efficiency initiatives to reduce costs
- Enhanced quality initiatives to increase value of resource
- Increased health and safety initiatives
- Sustainable harvesting technology and practices to preserve resources

Challenges

Global Pressures

- Market volatility (demand and prices)
- Competition from low-cost producers
- Exchange rate fluctuations
- Fuel price volatility
- International tariff and trade barriers (e.g. Autonomous Tariff Rate Quota (ATRQ) for shrimp and EU seal products ban)

Fishing Industry Structural Challenges

- Overcapacity in the harvesting and processing sectors
- Seasonality of the industry
- Aging infrastructure
- Need for industry modernization
- Resource uncertainty
- Weak collaborative marketing
- Structural inefficiencies (e.g. raw material, collection and trucking costs)

Workforce Challenges

- Current and anticipated demographics
- Attraction and retention of new workers due to seasonal employment, income and job security issues
- Evolving technology in the work environment, requiring specialized training

Aquaculture Industry Opportunities and Challenges

The Department of Fisheries and Aquaculture recognizes the social and economic impact that aquaculture is making in rural communities across the province. The department continues to work with industry and other stakeholders to facilitate continued growth. The significant expansion seen over the last five years has created both new opportunities and challenges for the industry. Such opportunities and challenges include:

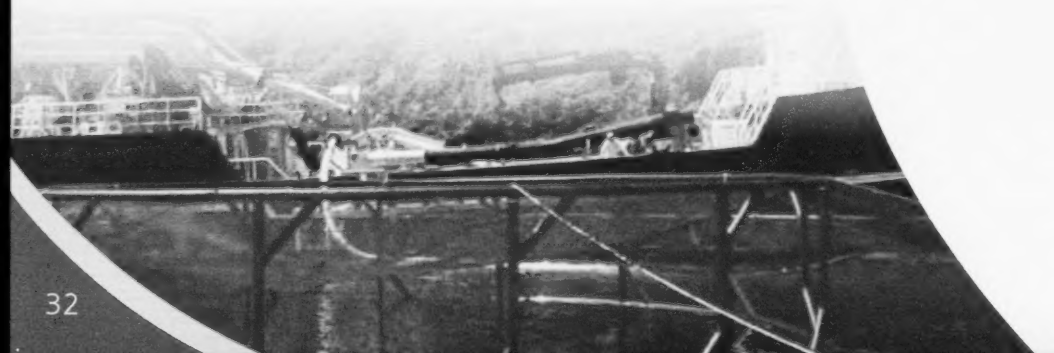
Opportunities

Favourable Development Climate

- Abundant areas for development with excellent water quality
- Skilled and experienced workforce supported by collaborative relationships with the scientific and academic communities
- Priority species ideally suited for continued development in this province, including Atlantic salmon, steelhead trout and blue mussels
- Streamlined licensing process with federal and provincial cooperation
- Expanded aquatic animal health capabilities
- Supportive infrastructure development initiatives
- Hatchery planning and development
- Collaborative relationships with departments and agencies
- Business-friendly province
- Increased global demand for quality seafood products from a sustainable industry
- Access to capital programs

Development Opportunities

- Increased opportunity for service and supply sectors
- Potential to generate long-term, year-round employment through production, processing and service industries
- Greater levels of production
- Broodstock and hatchery development
- Utilization of organic and inorganic waste



- Feed production and storage
- Equipment development and fabrication
- Development of more remote farming sites and offshore technology
- Product and environmental certification programs
- Alternative species development

Challenges

Global Pressures

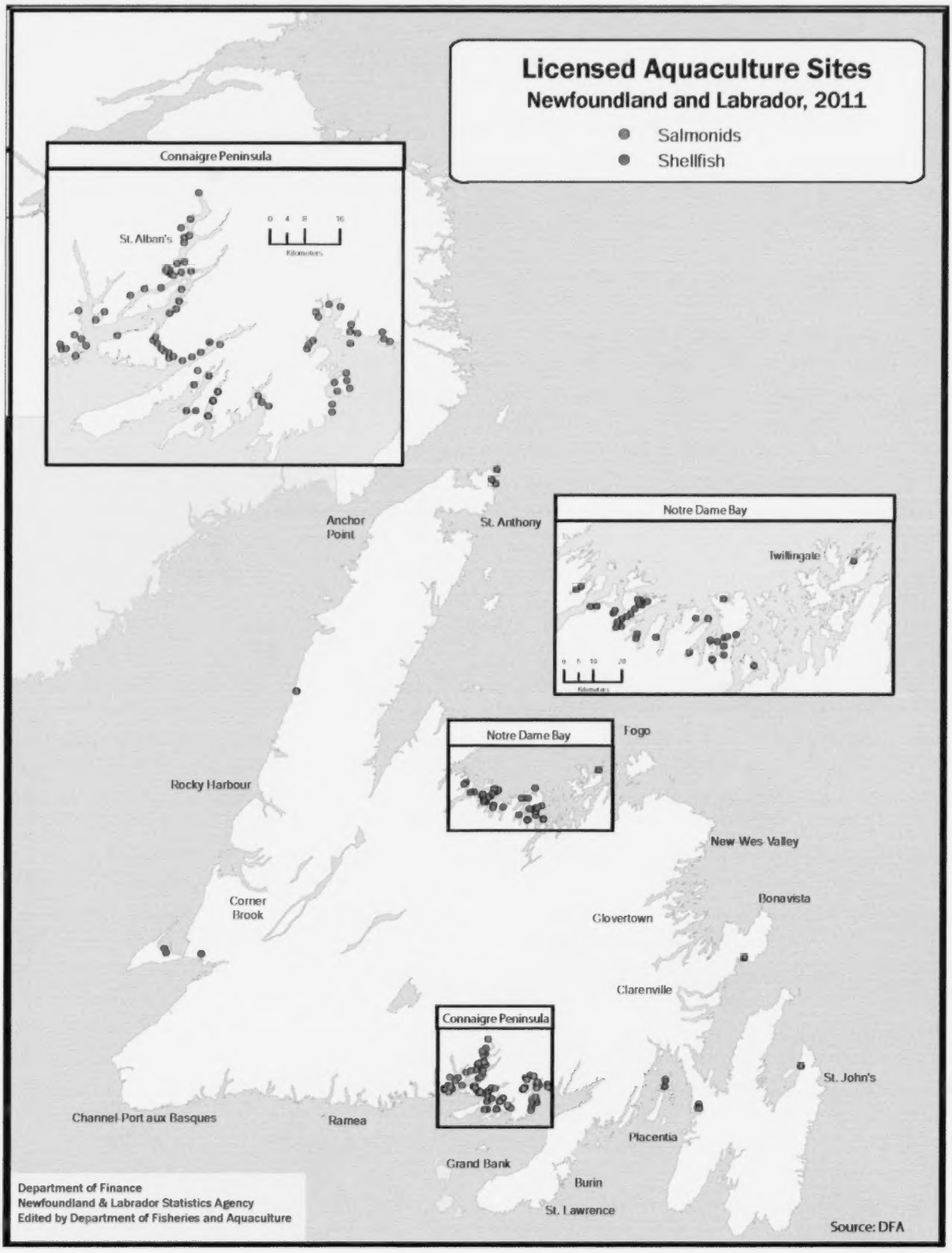
- Market price fluctuation
- Exchange rate volatility
- Identification of new markets for mussels
- Increasing production to meet growing demand
- Access to capital, competition and product certification
- Low demand from consumers and food service industry for mussels
- High fish food costs (aquaculture)

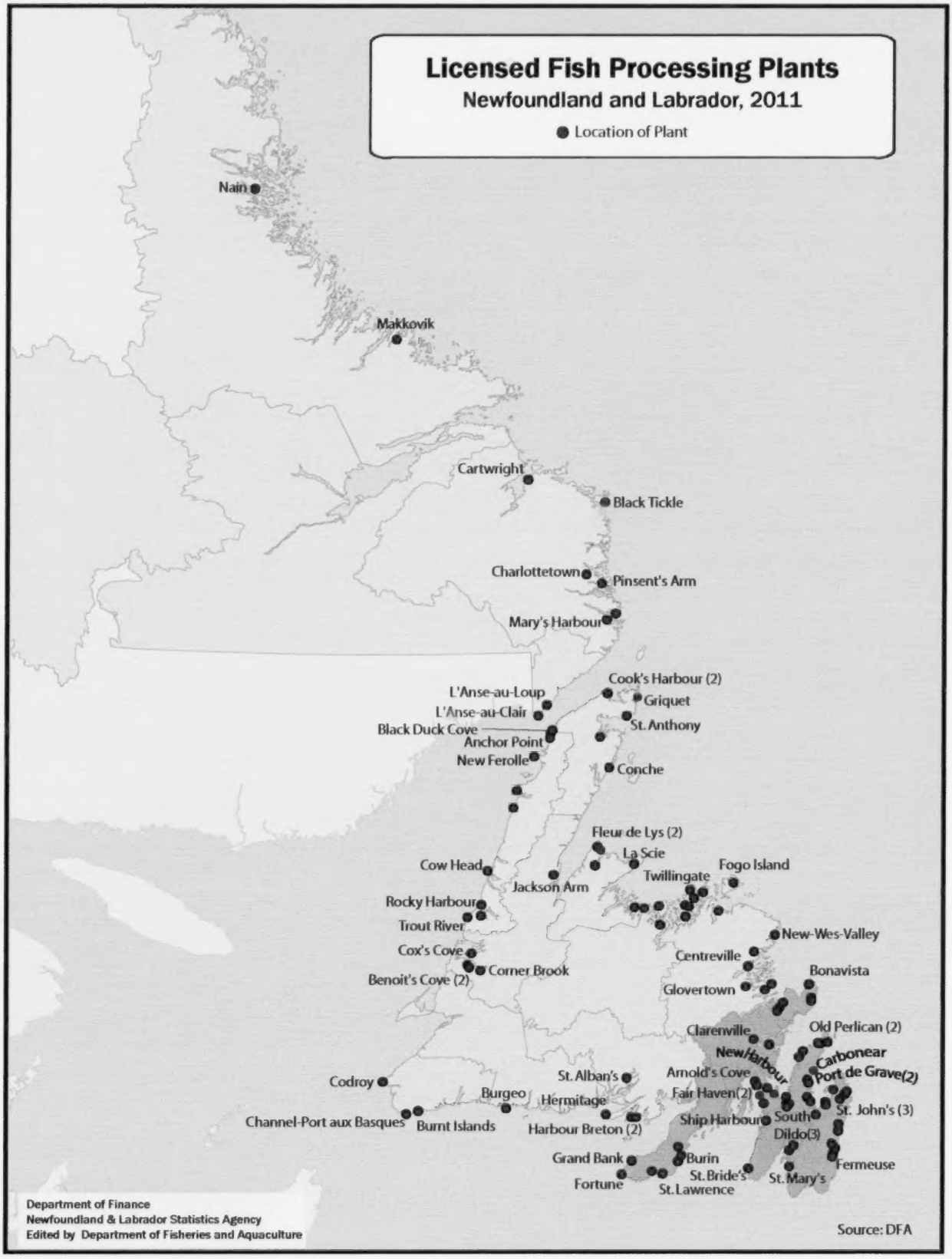
Sustainability

- Maintaining investment levels in the industry
- Increasing and upgrading infrastructure to support sustainable development and expansion
- Waste management
- Developing increased biosecurity approaches
- Increasing aquatic animal health management services
- Maintaining a flexible and efficient policy and regulatory environment

Workforce Challenges

- Recruiting and retaining trained employees
- Recruiting a number of specialized aquaculture veterinarians to service a growing industry
- Providing specialized training on evolving technologies in the work environment


Licensed Aquaculture Sites
Newfoundland and Labrador, 2011
Salmonids
Shellfish
Connaigre Peninsula
St. Alban's
Anchor Point
St. Anthony
Notre Dame Bay
Twillingate
Notre Dame Bay
Fogo
Rocky Harbour
New Wes Valley
Corner Brook
Bonavista
Glovertown
Clarenville
Connaigre Peninsula
St. John's
Channel-Port aux Basques
Ramea
Placentia
Grand Bank
Burin
St. Lawrence
Department of Finance
Newfoundland & Labrador Statistics Agency
Edited by Department of Fisheries and Aquaculture
Source: DFA


Licensed Fish Processing Plants
Newfoundland and Labrador, 2011
Location of Plant
Nain
Makkovik
Cartwright
Black Tickle
Charlottetown
Pinsent's Arm
Mary's Harbour
Cook's Harbour (2)
L'Anse-au-Loup
Griquet
L'Anse-au-Clair
St. Anthony
Black Duck Cove
Anchor Point
New Ferolle
Conche
Fleur de Lys (2)
La Scie
Cow Head
Fogo Island
Jackson Arm
Twillingate
Rocky Harbour
Trout River
New-Wes-Valley
Cox's Cove
Centreville
Benoit's Cove (2)
Corner Brook
Bonavista
Glovertown
Clarenville
Old Perlican (2)
New Harbour
Carbonear
Port de Grave(2)
Codroy
St. Alban's
Arnold's Cove
Burgeo
Hermitage
Fair Haven(2)
St. John's (3)
Channel-Port aux Basques
Burnt Islands
Harbour Breton (2)
Ship Harbour
South
Dildo(3)
Grand Bank
Burin
Fermeuse
Fortune
St. Bride's
St. Mary's
St. Lawrence
Department of Finance
Newfoundland & Labrador Statistics Agency
Edited by Department of Fisheries and Aquaculture
Source: DFA

APPENDIX A

The Invasion... European Green Crab

Aquatic invasive species (AIS) are non-native aquatic plants or animals that, once introduced to an area, can cause harm to ecosystems, native species, and the economy. Once established, these species may become almost impossible to eradicate and have implications for local fisheries, aquaculture operations, recreational activities, and even infrastructure. Four AIS are found in Newfoundland and Labrador waters, including the European green crab (*Carcinus maenas)* which is considered one of the top 100 worst invasive species in the world.

Aggressive and territorial, green crab can dramatically reduce populations of native species due to successful competition for resources and its voracious predation on juveniles (clams, mussels, scallops, oysters, other crustaceans, and even some fish). Green crab is credited with damaging shellfish fisheries elsewhere in the world and can even threaten shore birds who share a similar diet. It can destroy habitats such as eelgrass beds (nurseries for species such as cod and lobster) as it burrows and digs into the substrate, cutting the eelgrass roots. Add in a lack of natural predators and ability to reproduce rapidly, and green crab quickly becomes a threat to coastal ecosystems and the communities they support.

The introduction and spread of green crab is aided by natural and human activities, including transport of larvae in ballast water (likely source of introduction to Newfoundland and Labrador), on ships' hulls, movement of fishing gear and boats, shipment of live organisms, release of by-catch species outside the area of capture, and ocean currents. Native to the Atlantic coast of Europe and Northern Africa, green crab, with its wide tolerance to environmental conditions, is now globally dispersed on the coastlines of five continents.

While originally identified in North America in the early 1800s, it was not discovered in Newfoundland and Labrador until 2007, following a Placentia Bay Integrated Management Planning Committee meeting. The committee, which supports information sharing and conflict resolution between stakeholders on bay-wide issues, was given information on the potential threat of AIS to the area. A fish harvester, using the AIS identification

cards distributed at the meeting, soon made the discouraging discovery; green crab had arrived in Placentia Bay. A year later it was found on the west coast of the island in St. George's, followed by Bonne Bay in 2010.

Immediately after its discovery, assessment surveys were conducted in partnership with DFA, DFO and MUN, which found large concentrations of green crab in North Harbour and smaller populations throughout Placentia Bay. A 2008 project with the Fish, Food and Allied Workers resulted in 350,000 green crabs being caught at four locations over a two-week period by two harvesters (each pot yielding an average of 170 crabs!). Local students were also involved, collecting specimens from the beach. This year DFA is partnering with DFO and the aquaculture industry to look at population dynamics and impacts to shellfish. The discovery of green crab in Placentia Bay demonstrates how integrated coastal management can help elicit action on an issue and strengthen partnerships.

To raise awareness, AIS posters, key chains and fact sheets have been distributed around the province. Unless controlled, green crab will have a significant impact on marine biodiversity and coastal habitat in Newfoundland and Labrador waters. Responding to this threat is a shared responsibility, requiring collective efforts. In June 2011, DFA released the provincial Coastal and Ocean Management Strategy and Policy Framework, which identifies the need for a coordinated approach to prevent and mitigate the introduction of AIS. DFA will continue to work with partners on this important issue.

Did you know?

Green crab has been called ***"cockroach of the sea"*** because of its ability to survive such extremes as:

- living out of water for up to a week – in the sun!
- surviving in fresh water for short periods of time
- tolerating 0-30°C temperatures

Interesting fact

Green crab can rotate its claws over its back to defend against predators attacking from behind.

Other AIS in Newfoundland

Golden star tunicate, violet tunicate and crusting bryozoan

Stop the Invasion of AIS

Recognize – Remove – Report

Call: 1-866-266-6603

Email: AIS-EAE@dfo-mpo.gc.ca

www.nfl.dfo-mpo.gc.ca/AIS-EAE

European green crab

Size: carapace width up to 10cm

Colour: range from bright green to brown or red

Life span: four-seven years

Spawning: up to 185,000 eggs per female each year

Prey: mainly molluscs, worms and other crustaceans

Habitat: protected and semi-protected marine and estuarine habitats, with mud, sand, or rock substrate

Similar species: Rock crab

TRADE

Canada's Constitution gives the federal government sole jurisdiction over the negotiation of international trade agreements. Notwithstanding the effects of such agreements in areas of provincial and territorial jurisdiction and on their respective economies, provinces and territories have been largely limited to an advisory role in multilateral and bilateral international trade negotiations. The Canada-European Union negotiation has changed this model of interaction, and provinces and territories are now playing a more direct and significant role in the process. It is expected that this model of interaction will continue in future negotiations, such as with China and the Trans Pacific Partnership.

Canada is also involved in the World Trade Organization's Doha Round of trade talks and has been pursuing an aggressive bilateral trade agenda to achieve market access in key and emerging markets. In all, close to a dozen trade agreements are currently being negotiated by Canada, and Newfoundland and Labrador provides input into each.

Because Newfoundland and Labrador is a significant seafood exporter, with more than 80 percent of our seafood production shipped to over 50 countries around the world, trade, with all its issues and challenges, is an important focus for the province. A variety of groundfish, pelagics and shellfish are captured or farmed in our coastal waters, landed in hundreds of ports along our coastline, processed in over 100 plants by workers from different communities and finally exported to the world market. Over 20,000 Newfoundlanders and Labradorians are engaged in the distribution chain of this $1 billion provincial industry. With annual exports of approximately 160,000 tonnes (valued at about $800 million), our province is one of the largest Canadian seafood exporting provinces. We account for over 20 percent of total Canadian exports. Other major exporters include British Columbia, Nova Scotia and New Brunswick.

For decades, the United States has been the largest importer of our seafood products. However, since the 1990s, the importance of this market has been declining. Currently, 35 percent of our seafood products are shipped to the United States compared to more than 80 percent in the 1980s. This has been in large part due to the collapse of the Atlantic groundfish fishery and the subsequent growth in the aquaculture and shellfish sectors. With the shift to shellfish, producers have been expanding and diversifying their markets into China, the EU, Russia and Japan.

While the majority of our seafood products are destined for international markets, producers continue to face market access issues, such as tariffs and non-tariff barriers. The high tariffs instituted in many countries are having negative impacts upon the ability of our producers to access these international markets. For example, approximately 80 percent of the province's cooked and peeled shrimp are exported to the EU. Because Newfoundland and Labrador producers pay a 20 percent tariff to export these products into the EU, their overall costs are increased and profit margins are lower. The tariff places our producers at a substantial competitive disadvantage when compared to producers from countries such as Norway and Iceland, which have free market access to the EU.

DFA takes a proactive approach to trade issues impacting the province's seafood industry. DFA officials work closely with IBRD to ensure the views of the seafood industry are represented at the negotiating table. This has included presenting the province's position to the federal government on multilateral negotiations at the WTO and bilateral negotiations with our partners such as the EU. The attainment of real market access in agreements such as these would result in positive benefits for the seafood industry and for the people of Newfoundland and Labrador.

Since 1998, the province has actively lobbied the EU for the elimination of tariffs on seafood products. Our efforts have resulted in the application of the EU's ATRQ. Under the ATRQ for 2010-12, 20,000 tonnes of coldwater shrimp can enter the EU annually with no tariff. Even so, the ATRQ still has end-use restrictions which limit our producers to selling bulk shipments only. All cooked and peeled shrimp products must be designated for further processing. Products that are branded or further processed are not eligible under the ATRQ. While the tariff is eliminated, market access remains limited and the possibility exists of further branding of consumer packs. As well, the ATRQ is subject to renewal on a short-term basis and it is open to all countries.

Non-tariff barriers in many countries, such as labelling and certification requirements for exported seafood, stringent sanitary and phytosanitary measures, and rules of origin requirements, are impediments to real market access as well. Other external challenges include the appreciation of the Canadian dollar, increased fuel costs, international competitiveness from the low-cost producers and global economic challenges.

The Development of Salmon Hatcheries in Newfoundland and Labrador

Stephenville Hatchery

The Newfoundland and Labrador salmonid aquaculture industry continues to experience significant growth and expansion. From 2007 to 2011, production increased from 4,857 to 14,264 metric tonnes, with a corresponding increase in value from $30 million to $111 million or 270 percent. This phenomenal growth is attributed, in large part, to the significant investment in aquaculture by both government and industry. The establishment of hatcheries within the province is a major aspect of ensuring that this growth is maintained and accomplished in a biosecure and sustainable manner. The salmonid sector has tremendous potential for growth in many regions of the province.

Biosecurity and sustainability are crucial elements in the development of the aquaculture industry. Newfoundland and Labrador-raised smolt greatly enhances the biosecurity of the industry. In the past, industry relied on smolt transfers from outside the province, largely from Nova Scotia and New Brunswick. This practice increased biosecurity risk by increasing the risk of pathogen transfer and resultant stress associated with transport. Hatcheries based within the province will decrease such biosecurity risks and will result in healthier and more robust smolt that can be transferred at times that meet the needs of the Newfoundland and Labrador industry. The salmonid industry will have more control over fish size, stocking times and the health status of the fish, while at the same time reducing the economic impact of fish importation.

The Department of Fisheries and Aquaculture has long recognized the province's potential to develop its fresh water resources for in-province smolt production. In 2005, the province commissioned a study to identify locations that might be suitable for hatchery development. Twelve sites were identified, many on the province's west coast, where groundwater is abundant. The 2005 study has been beneficial for those wishing to develop hatcheries in the province and has assisted at least one company in identifying a final location for the hatchery in Stephenville.

smolts

New Hatchery Developments

Cold Ocean Salmon Inc. began farming fish in this province in 2006 and subsequently purchased farm sites and the salmon hatchery in Daniel's Harbour. In late 2009, recognizing the benefits of producing smolts within the province, Cold Ocean Salmon started a major expansion to its hatchery in Daniel's Harbour. Prior to the expansion, the hatchery was capable of producing 500,000, 50 gram smolts on an annual basis. Smolts were transferred directly from the hatchery to marine cage sites on the south coast. The main building in Daniel's Harbour consisted of a hatchery, nursery room and smolt area that housed twelve 5-meter tanks. The expansion added an additional smolt area that houses three 10-meter tanks and has the capability for water recirculation and water treatment.

The company also added a second facility in Swanger Cove in the Bay d'Espoir area. This new facility is a salmon nursery and allows the company to produce approximately 2.5 to 3 million fish in Daniel's Harbour. The fish are then transferred as fry to the nursery facility in Swanger Cove. The construction of the Swanger Cove facility began in the spring of 2010 and the first fry transfer from Daniel's Harbour occurred in 2011. The nursery is a recirculation facility and consists of a prefabricated steel building with two 1,600m^3, 92 percent recirculation units. Each module consists of eight 200m^3 fiberglass tanks. The Swanger Cove nursery has a maximum capacity of three million smolt. The Daniel's Harbour and Swanger Cove facilities employ 11 and 13 staff respectively at maximum production.

eggs

alevin

fry

Northern Harvest Sea Farms began farming fish in the province in 2008. The company identified the need for a large-scale salmon hatchery and nursery facility in order to secure a supply of fish for its operations in the province. The Stephenville area, on the west coast, was identified as the best location for this expansion. The company began construction on the 95,000 square foot facility in late 2010. The facility consists of three buildings, one hatchery/fry building (35,000 square feet) and two smolt buildings (30,000 square feet each) and is expected to produce 4.8 million smolt annually. The hatchery received its first eggs in mid-November 2011. The fry portions of the building and the two smolt buildings are currently under construction but are due for completion by the end of June 2012. Future plans include a fourth building which will house an in-province broodstock program.

EVENT PARTICIPATION* 2011-12

Trade Events:

- Aquaculture Canada Conference, Charlottetown, PE – March 2012
- European Seafood Exposition, Brussels, Belgium – May 2011
- World Food Moscow, Moscow, Russia – September 2011
- China Fisheries and Seafood Exposition, Qingdao, China – November 2011
- Newfoundland Aquaculture Industry Association Trade Show, Gander, NL– February 2012
- International Boston Seafood Show, Boston, MA – March 2012

Conferences and Events:

- Coastal Zone Conference 2011 (US), Chicago, IL – July 2011
- Atlantic Council of Fisheries and Aquaculture Ministers'/Canadian Council of Fisheries and Aquaculture Ministers' meeting, Iqaluit, NU – August 2011
- Coastal and Estuary Research Foundation Conference, Daytona, FL - November 2011
- International Coldwater Prawn Forum, London, UK – November 2011
- Atlantic Fisheries and Aquaculture Committee, Iqaluit, NU – April 2011
- Atlantic Coastal Zone Information Steering Committee, Charlottetown, PE – January 2012
- North Atlantic Seafood Forum, Oslo, Norway – March 2012
- Atlantic Water Symposium, Truro, NS– March 2012

*Note. This list is not exhaustive

Committee Participation 2011-12

Department of Fisheries and Aquaculture representation at the national and regional levels.*

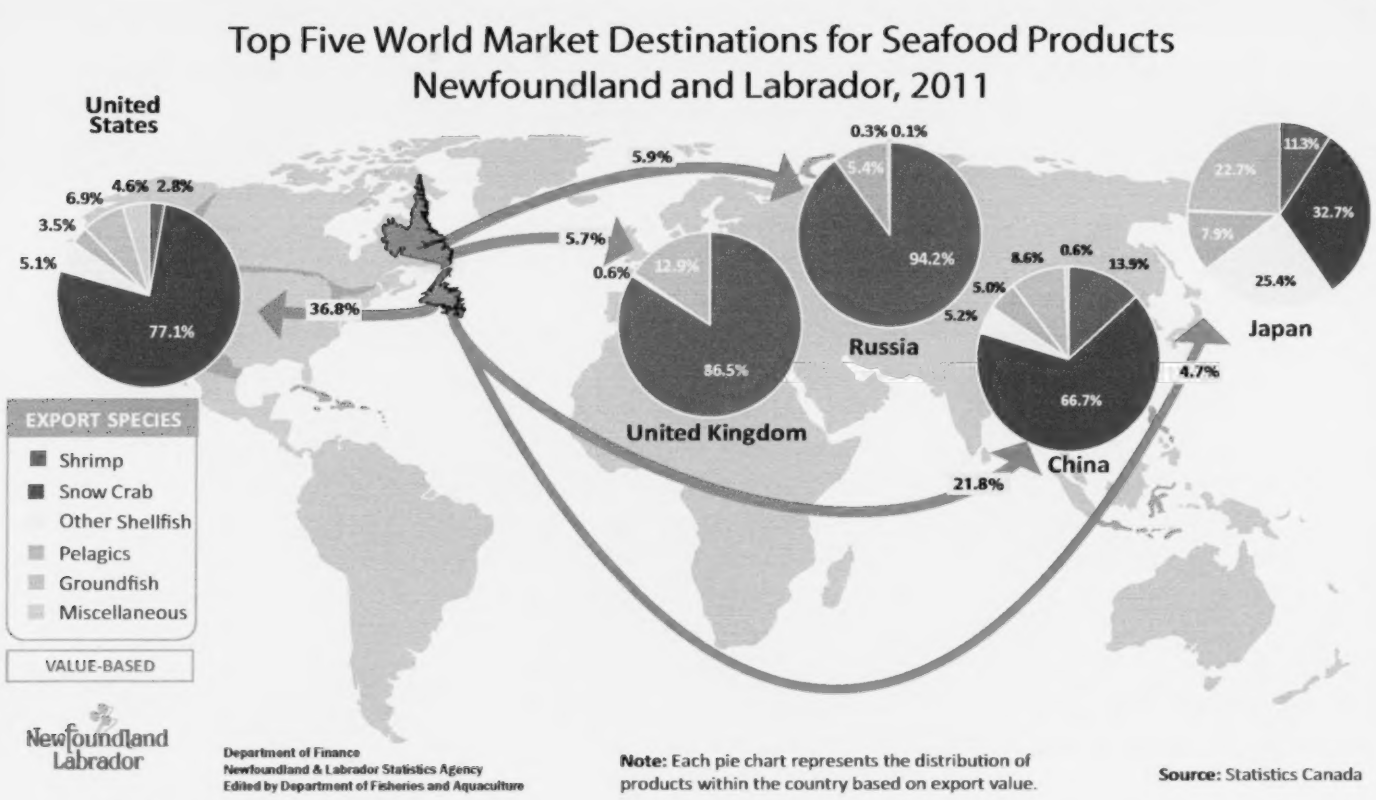
National Participation

- Canada/France Fisheries Advisory Committee
- Canada-Newfoundland and Labrador Committee on Ocean Management
- Canadian Council of Fisheries and Aquaculture Ministers, with associated task groups, working groups and committees
- Canadian delegation to Northwest Atlantic Fisheries Organization meetings
- Canadian Shellfish Sanitation Program Working Group
- Canadian Food Inspection Agency Working Group for Disease Control
- Committee on the Status of Endangered Wildlife in Canada
- Federal and Provincial Introductions and Transfer Committee
- Federal/Provincial Export Market Development Consortium
- Federal/Provincial Market Development Council
- Fur Institute of Canada Sealing Committee
- Health Canada Expert Advisory Panel on Veterinary Drugs
- National Fish Health Management Working Group
- Seafood Value Chain Roundtable

Regional/Provincial Participation

- Atlantic Council of Fisheries and Aquaculture Ministers with associated task groups, working groups and committees
- Atlantic Coastal Action Program Humber Arm Environmental Association / Bay of Islands Coastal Management Area Committee
- Atlantic Coastal Zone Information Steering Committee
- Atlantic Large Pelagic Advisory Committee
- Atlantic Seafood and Food Trade Group
- Atlantic Seal Advisory Committee
- Bay St. George and Port au Port Peninsula Marine and Coastal Resources Steering Committee
- Coast of Bays Coastal Planning Committee
- Eastern Aquaculture Veterinary Association (sub-committees)
- Gulf Groundfish Advisory Committee
- Gulf Shrimp Advisory Committee
- Gulf Capelin Advisory Committee
- Newfoundland and Labrador Aquatic Invasive Species Steering Committee
- Newfoundland and Labrador Regional Cod Recovery Working Group
- Newfoundland Lobster Sustainability Board - Executive Committee
- Placentia Bay Integrated Management Planning Committee
- Provincial Aquatic Invasive Steering Committee
- Provincial Investment Attraction Strategy Committee
- Provincial Coastal and Ocean Network

*Note: This list is not exhaustive.



Market Overview

Newfoundland and Labrador is export-dependant. According to Statistics Canada, the province's seafood export value in 2011 increased 10.3 percent to $860 million, up from 780 million in the previous year. The improved global demand for seafood, higher market prices for crab and shrimp, and an increase in aquaculture exports contributed to the growth. The export volume, however, decreased 12.5 percent to 158,553 tonnes, down from 181,114 tonnes in 2010. This was due in large part to a greater portion of shrimp exports in the cooked and peeled form, which has a lower weight but a higher value than the shell-on products.

The United States and China continued to be the province's largest seafood markets in 2011, accounting for 36.8 percent and 21.8 percent respectively of the province's total export value. Other key markets based on export value included Russia (5.9 percent), the United Kingdom (5.7 percent), Japan (4.7 percent) and Denmark (4.1 percent). These six markets comprised 79.0 percent of the provincial export value. The remaining portion was exported to approximately 50 other countries.

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Front and back cover: Courtesy of Canadian Association for Prawn Producers - Iceberg

Pg. 1 Lisa de Leon - Bay Bulls

Pg. 2 Donna Grimes - Woody Point and Trout River

All other images are property of the Department of Fisheries and Aquaculture.

Abbreviations and Acronyms

AIS - Aquatic Invasive Species
ASP - Association of Seafood Producers
ATRQ - Autonomous Tariff Rate Quota
BMA - Bay Management Area
BMZ - Biosecurity Management Zone
CCFAM - Canadian Council of Fisheries and Aquaculture Ministers
CCFI - Canadian Centre for Fisheries Innovation
CETA - Comprehensive Economic and Trade Agreement
CFER - Centre for Fisheries Ecosystems Research
CMA - Coastal Management Area
DFA - Department of Fisheries and Aquaculture
DFO - Department of Fisheries and Oceans Canada
EU - European Union
FFAW - Fish, Food and Allied Workers
FIR - Fishing Industry Renewal
FTNOP - Fisheries Technology and New Opportunities Program
IBRD - Department of Innovation, Business and Rural Development
LFA - Lobster Fishing Area
LIFO - last-in, first-out
MI - Marine Institute
MUN - Memorial University of Newfoundland
NAFO - Northwest Atlantic Fisheries Organization
NAIA - Newfoundland Aquaculture Industry Association
PBR - Production Based Region
PCON - Provincial Coastal and Ocean Network
SPONL - Seafood Processors of Newfoundland and Labrador
WTO - World Trade Organization
WWF - World Wildlife Fund

Newfoundland
Labrador

Fisheries and Aquaculture